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Archives of Dermatology and Syphilology

VOLUME 16 JULY, 1927 NUMBER 1

THE SKIN PICTURE IN HEMATOPOIETIC DISEASES *

OSCAR GANS, M.D.
Professor of Dermatology and Dermatopathology, University of Heidelberg
HEIDELBERG, GERMANY

Leukemic and aleukemic lymphadenosis and myelosis of the skin (leukemia cutis lymphatica and leukemia cutis myeloica) usually appear in association with a general tumor-like disease of the hematopoietic system, called hemoblastosis. The latter disease is divided into three large groups: (1) so-called leukosis, which results from hyperplasia of the parenchyma of the leukopoietic tissue (diseases of the erythroplastic tissue are not considered here); (2) so-called granuloma, which arises from the interstitial tissues of the bloodforming organs, and (3) true tumors of the hematopoietic system.

I am chiefly concerned with the first group. Since Ehrlich has been able to differentiate leukosis on the basis of blood changes demonstrable by his tinctorial methods, a division is made into myelosis, characterized by proliferation of the myeloid tissue, and lymphadenosis characterized by hyperplastic proliferation of the lymphadenoid tissue. Since these types are associated with either an absolute or a relative increase in the leukocytes, both are divided into leukemic, subleukemic and aleukemic subgroups (according to Arndt's classification). Tumor-like systemic diseases, formerly called pseudoleukemia, are included in the third subgroup, as one does not now consider changes such as lymphosarcomatosis and lymphogranulomatosis of the skin. The clinical course of these diseases permits further division into acute and chronic types. The former are rare and very likely the result of septic processes; the latter are more common and are differentiated by the presence of certain blood cells, such as myeloblasts, myelocytes or lymphoblasts and lymphocytes. The discussion is much simplified by the fact that one does not deal with fundamental differences in the leukemic and aleukemic diseases. The distinction is quantitative and not qualitative. According to the latest observation one is concerned with a persistent, even if a slow, change in the leukemic blood picture; moreover, the macroscopic and microscopic changes are similar.

* Read at the meeting of the Minnesota Pathological Society, Dec. 21, 1926.

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The skin changes in myelosis as well as in lymphadenosis may be divided into a few clinical groups, the limits of which are determined equally well by the pathologic and histologic characteristics. Both diseases may be classified as specific and nonspecific; however, the nonspecific variety bears but loose relationship to the underlying disease and needs further elucidation. Similar skin changes may be seen in a large series of other diseases of an erythrodermal nature, such as Hebra's pityriasis rubra, and in urticarial, bullous, pruriginous and hemorrhagic lesions. This grouping may be discarded when more is learned about the general factors that may lead to such skin changes. This is shown by Fischl's case of herpes zoster with generalized leukemic lymphadenosis and specific changes in the gasserian ganglion.

There are only a few cases, sharply defined clinically and histologically, which are alike in their leukemic and aleukemic forms as manifested in the skin. These manifestations are usually found in more or less circumscribed foci, rarely being generalized. Cases have also been seen in which the skin was primarily attacked and the lesions remained confined to it; furthermore, lymphadenosis of the skin is much more common than myelosis, of which much less is known.

LYMPHADENOSIS CUTIS UNIVERSALIS

Arndt applied the term lymphadenosis cutis universalis to the general infiltrative lymphadenomatous erythroderma, which appears clinically as a diffuse swelling of the entire skin. The swelling may be light or dark, is usually symmetrically distributed and causes intense itching. The surface is smooth or occasionally scaly, and at times shows an eczematoid or lichenoid change. It is occasionally accompanied by changes in the growth of the hair and nails. The disease cannot readily be differentiated from similar changes seen in other diseases, such as granuloma fungoides and pityriasis rubra.

The general disease, however, usually points toward leukemia. Histologically, the change consists of a dense uniform infiltrating band or a very dense accumulation of miliary nodules in the upper and middle layers of the cutis, which is determined by the manner of development of this diffuse skin disease. The collection of cells adheres closely to the markedly dilated upper vascular net of the cutis, whereas the papillary vessels are entirely free. The infiltration seems to be separated from the epithelium by a uniform band of normal connective tissue, which is only occasionally penetrated by the linear cell group reaching to the basal cell layer. Laterally and downward the limitation of these cell groups is ill defined. They are often seen as longer or shorter perivascular strings but stop rather abruptly as they approach the lower cutis. Here they are seen only as sparse perivascular, periglandular or interglandular infiltration in the microscopic sections.

The cell collections are characterized by uniformity of type. They consist solely of lymphocytes which are different only in size, form of nucleus and protoplasm content. One can recognize small and large lymphocytes and occasionally some lymphoblasts. In contradistinction to the former, the lymphadenosis cutis circumscripta arises as a few or multiple circumscribed skin nodules, varying in size and of a peculiar doughy consistency. Their brownish and bluish red surfaces are traversed by fine telangiectatic vessels. The nodules are commonly found on the face, seldom on the trunk or extremities. They usually occur on an unchanged skin in the form of flat, slightly elevated, scattered lesions, but sometimes they are definitely elevated and spherical. They develop without causing much discomfort and usually involute without ulceration or scarring. Occasionally, papillomatous structures have been observed.

In contradistinction to the diffuse type these lesions histologically are sharply circumscribed nodules and plaques which vary in size. Occasionally, strands of cells branch out into the surrounding tissue. In the beginning they are clearly arranged about the vessels, hair follicles and sebaceous glands, and are separated by connective tissue. The individual nodule may be formed by a coherent mass of cells or it may be made up of a large number of small nodules. Differences must be searched for by minute examination of the filtration. The peculiar separation from the papillary and subpapillary layers is clearly seen in the form of a small edematous band of connective tissue pierced by dilated vessels and lymph spaces. Accumulations of cells arise here from the deeper vascular net of the cutis. The cellular infiltration penetrates upward and downward, closely adhering to the vessels. In the early stages one finds infiltrating cells surrounding the vessels in cylindriform or bandlike manner. These masses are often connected by fine strings of cells which cannot be mistaken because of the uniformity of the cell types of which they are formed. In older patches, all stages can be found, up to the large sharply defined knotlike infiltrating mass. The cell construction of these knotlike masses, in which the deposit of cells in the fine network of connective tissue can still be clearly recognized, is probably even more uniform than that seen in the diffuse type.

MYELOSIS OF THE SKIN

In this type of hyperplasia, skin changes are far less frequent than in lymphadenosis. Clinically, one differentiates between acute and chronic types, and between leukemic and aleukemic myelosis. The latter classification is not accepted by some authors. Both are associated with marked splenomegaly, with or without a myeloid blood picture. The myelosis is still less understood than the lymphadenoses;

this is particularly true of the acute types, with their various myelocitic, myeloblastic and microblastic cell contents. Therefore, careful pathologic observation seems necessary for distinguishing the various types, just as in the skin manifestations of lymphadenosis one can differentiate between specific and nonspecific types. The nonspecific skin manifestations in myelosis are understood even less than those seen in lymphadenosis. There are reports on seborrheic eczema, diffuse erythroderma, hemorrhagic exanthemas or cutaneous lesions, varying from brownish to reddish brown, more commonly tumor-like, but occasionally ulcerative, occurring as nonspecific skin changes. In contradistinction to leukemic adenosis with its predilection for the face, the lesions of myelosis are found chiefly on the trunk. In their general construction, and in their relationship to the surrounding tissues, especially the vessels, they do not differ from lesions of lymphadenosis.

Only the cell forms constituting the infiltrating mass need special attention. They consist, in the first place, of large mononuclear cells with narrow or broad neutrophil granular protoplasm, the so-called myelocytes or myeloblasts. These are often associated with mononuclear, multinuclear, eosinophil or even mast cells; occasionally very small cells, so-called micromyelocytes, are seen. The oxydase reaction, which is positive in most cells, is characteristic, even if not nearly so common as in the infiltrations of cells in the internal organs. In some cases large cells were found in the lumens of the vessels and their immediate neighborhood, while the main mass did not contain any. These were probably no longer the true lesions of myelosis, but were in a stage of transition to typical chloroma. The cases described by Sternberg are closely related. In these, tumor-like nodules of large mononuclear neutrophil cells, polymorphonuclear neutrophil leukocytes, lymphocytes and a few nucleated erythrocytes were found; these nodules, however, are in the nature of true chloroma. When they are greenish or the pure hyperplastic type, or when the aggressive proliferation simulates sarcoma, one is inclined to consider them of myelogenic origin, especially because the blood picture closely simulates that of acute myelogenic leukemia. In spite of this, it must be emphasized that such lesions are found when the blood condition indicates lymphatic leukemia. In chloroma also one occasionally sees involvement of the skin in the form of green or greenish black nodes. Whether the chloromas should be separated from leukemic myelosis and classified as true tumors is still uncertain.

LEUKOSARCOMATOSIS

Leukosarcomatosis, in which the blood picture manifests itself in absolute and relative increase in the large mononuclear cells, may be classified as true tumor, but even its position in the system is still

uncertain. It is apparent that a definite line cannot be drawn between leukosarcomatosis and true leukosis, in the present state of knowledge. I wish to add here an observation of a skin change in polycythemia which has not been reported by any other observer. A deep infiltrative mass appeared on the right hip of a patient with polycythemia, at the border of the cutis and subcutis. Clinically the disease of the skin appeared similar to deepseated nevus vasculosus. The histologic picture showed marked proliferation of the intima of the blood vessels of the upper and deeper net of the skin, with some occlusion of these vessels and perivascular infiltration. These infiltrative cells correspond morphologically to the small lymphocytes. As they give a positive oxydase reaction they probably belong to the myelogenic group. If this is true, the condition is a skin disease which corresponds to the few cases in which myelogenic leukemia has been known to develop in late stages of polycythemia without skin changes.

As yet, a generally satisfactory formula for the differential diagnosis of leukemic disease of the skin has not been found, and it probably will not be until the causes of the various diseases involving the hematopoietic system have been discovered. Therefore, the effort to separate these disease pictures must fail, except so far as gross differences may be concerned. From a purely dermatologic point of view it cannot be done. Despite this, a number of questions arise which must be answered; for instance, there are a number of diseases of known etiology in which a condition similar to lymphatic or myelogenic leukemia exists. This applies particularly to the blood picture in sepsis, in intoxication with blood poison, in metastatic tumors of the skeleton and, occasionally, in congenital syphilis of the infant. Such diseases, most of which usually may be cured, have, of course, nothing to do with the diseases under consideration. I am dealing here simply with "leukemoid" diseases.

Characteristic cases of lymphadenosis and myelosis are easily differentiated. In the former is seen the picture of small lymphocytic cells with a more strongly staining nucleus, occasionally associated with plasma cells. In the latter the predominating, infiltrating cells are large, simulating myeloblasts, and are associated to a varying degree with neutrophils, eosinophils, myelocytes, micromyelocytes, mast cells, polymorphonuclear leukocytes and nucleated erythrocytes. Some of these cells at least give a positive oxydase reaction. This uniform and even characteristic structure usually permits a differentiation from clinically similar skin changes, particularly from sarcoma. True sarcoma of the skin, which usually appears as a single node, in contradistinction to leukosis, is differentiated also by the complete destruction of the connective tissue of the infiltrating masses. In the individual case the small round cell sarcoma may cause some difficulties in diagnosis; but

even here the abundant evidence of atypical mitosis in the sarcoma, in contrast to its rarity in lymphadenosis, permits differentiation. Conditions are similar in the true lymphosarcoma, for in them the skin lesions are as a rule made up of large roundish mononuclear cells, the nuclei of which show a loose network of chromatin.

Multiple idiopathic pigment-sarcoma would probably not cause any difficulties if it occurred in its classic form. When it is found on the face, it may closely simulate leukemic tumor. As it is highly vascular and hemorrhagic, usually contains extracellular granules (in which iron may be demonstrated) and is also made up of lymphocytes, plasma cells and spindle cells, it will not easily be mistaken, especially as it lies in the subcutis and not in the cutis.

Occasionally, myomas, chronic inflammatory granulations, both tuberculous and tuberculoid (lupus tumidus, lupus pernio and sarcoid), and particularly also syphilitic nodules, especially when on the face, may cause difficulties in differential diagnosis. The histologic differentiation of these diseases will, however, never cause difficulties, especially since regressive metamorphosis in the form of caseation or necrosis is never observed in leukosis.

Lymphogranulomatosis and particularly granuloma fungoides are generally easy to differentiate. In the first, granulation tissue affords sufficient evidence; in the second, the polymorphism of the infiltrating cells with the pronounced proliferative changes in the connective and vascular structures, and the situation of most of the nodules in the subpapillary vascular net and the upper third of the cutis, are sufficient for differentiation. It is particularly necessary to emphasize this, since French and Italian authors have attempted to establish a relationship between granuloma fungoides and leukosis.

Enormous difficulties in diagnosis may be presented by those cases with diffuse generalized erythroderma, associated with generalized erythema and swelling of the skin, coincident with enlargement of the lymph nodes, the spleen and the liver. These signs are found not only in lymphogranulomatosis and mycosis fungoides, but also in the so-called pityriasis rubra Hebrae, and in generalized, hyperplastic proliferation of lymphatic tissue, which is occasionally malignant. The blood picture is not sufficient to differentiate the various diseases, as may be seen from the early part of this discussion. Neither will the histologic examination in some cases give a clear-cut diagnosis; for instance, local eosinophilia, commonly found in leukotic erythroderma, is not of decisive importance, as a similar condition is seen in prurigo lymphatica. The histologic evidence in the skin lesions does not permit differentiation of leukemic or aleukemic erythroderma from the diseases just mentioned. Here one must employ the entire armamentarium of the clinical and histologic methods of examination.

The cause of leukosis is still unknown. Infectious and blastomatous factors have been accused, but a definite decision has not been reached. The observations of a number of workers concerning a gram-positive bacillus, not acid-fast, a gram-positive, acid-fast bacillus and the true bacillus of tuberculosis in a number of cases need confirmation, although they suggest infection as the cause. The more recently noted transmission of certain types of sarcoma (Rous and others) with filtrable and cell-free sarcoma material supports this view.

Morphologically, infiltrating masses in the skin are no longer considered the result of lymphocytic and myelotic migrations, but the conception of an autochthonous development has been accepted. This belief is supported by the teaching of Ribbert on the ubiquitous presence of lymphatic tissue. These foci of lymphocytic cells, which usually are present only in traces, begin to proliferate as the result of the leukemic noxa, just as they do in similar tissues elsewhere. The observations of Nekam and Arndt, who found numerous lymphocytes and lymphoblasts in the process of nuclear division, have proved that migration of the cellular elements from the vascular system and their proliferation in the tissue are possible. The appearance of lymphatic, as contrasted with myelotic, skin changes, may be explained by the presence of lymphatic cells in the skin, which participate in the most ordinary pathologic changes, while the myelotic cell elements in the immature state in which they circulate in the blood are completely absent in the skin. Presumably, therefore, there is autochthonous development of the extramedullary myelogenous tissue, but one cannot venture any opinion as to whether this arises from the endothelium of blood capillaries or from the cells of the adventitia.

LUPUS ERYTHEMATOSUS

TREATMENT WITH TUBERCULIN *

A. BENSON CANNON, M.D.
AND
GEORGE G. ORNSTEIN, M.D.
NEW YORK

While medical literature contains many references to the use of tuberculin in an effort to establish a relationship between lupus erythematosus, lupus vulgaris and other forms of tuberculosis, few instances are reported in which tuberculin has been used as a therapeutic agent in lupus erythematosus.

Ravogli [1] reported two cases in 1915. A woman, aged 24, suffering from pulmonary tuberculosis and a generalized eruption which consisted of erythematous and slightly desquamating patches and numerous small, round, hemorrhagic papules, was believed to have lupus erythematosus diffusus. The eruption was thought to be a tuberculid. One injection, in the back, of 0.01 mg. of new tuberculin was followed by high fever, swelling and redness of the face, bullous lesions over the skin, delirium and death. In the second case, one of disseminated lupus erythematosus, injections of old tuberculin A had resulted probably in some improvement. After one injection of 0.01 mg. of new tuberculin, the patient's temperature rose. Death occurred in two weeks with the same septic symptoms as those in the first case. The author stated that while in the past he had praised tuberculin as a curative agent, after these two unfortunate experiences he intended never to use it again.

In 1921, Roger Korlisch treated ten patients believed to have lupus erythematosus with injections of old tuberculin. Nine of these were cured, and the tenth was found to have lupus vulgaris. Preliminary to treatment, 0.5 cc. of a 1:10,000 dilution was injected intramuscularly. If a systemic reaction resulted, Korlisch regarded it as evidence of foci of tuberculous infection in the internal organs and the case as not suitable for treatment with tuberculin. The technic employed was to give several injections of 0.5 cc. of a 1:1,000 dilution of old tuberculin around the areas of lupus erythematosus and then to cover the infiltrated lesions with petrolatum and gauze. A reaction did not occur until the following day, when the areas became painful, red

* From the Departments of Dermatology and Tuberculosis, Vanderbilt Clinic, Columbia University.

1. Ravogli: J. Cutan. Dis. **33**:266 (April) 1915.

and swollen, and remained so from two to four days. The number of treatments given varied with the case.

Dr. Hubert Sieben,[2] in 1924, reported one patient with chronic lupus erythematosus treated with Ponndoff tuberculin B. A woman, aged 43, whose lesions were of twenty years' duration, received six injections over a period of six months, each injection being followed by a systemic reaction of fever for one or two days. All of the lesions were healed, but her general condition was unaffected. She had not had any recurrence of lupus erythematosus when she was last seen, one and a half years later.

In our clinical study of the association of lupus erythematosus with tuberculosis, we are able to produce local reactions by injections of tuberculin and, in many instances, focal and general reactions in proved cases of lupus erythematosus. In those cases in which there was a focal reaction, we observed that when the inflammation had subsided the diseased areas were noticeably improved. This led us to believe that tuberculin therapy might be of value in lupus erythematosus.

We used Koch's old tuberculin in the treatment; fresh dilutions were prepared every two weeks, and subcutaneous injections were administered twice a week. We determined the initial dose by injecting, intracutaneously, 0.1 cc. of various dilutions of Koch's old tuberculin and then gave as this dose the dilution next higher than that which produced a skin reaction; for example, if 0.1 cc. of a 1:100,000 dilution injected intracutaneously produced a skin reaction, we would begin the subcutaneous treatment with 0.1 cc. of a 1:1,000,000 dilution. We increased the initial dose of 0.1 cc. by 0.1 cc. at each injection until there was a local reaction; then we began again and employed the dosage preceding the one which produced the reaction. With the next injection, if skin reactions were not noted, the dosage was increased as before.

At first, we attempted to keep a record of the temperature of the patients at definite intervals after the injections of tuberculin, but since it was difficult to secure their cooperation, we took the temperatures only when they appeared at the clinic before the injections were given. All of our patients were ambulatory, and came in to the clinic for treatment. Treatment was not given in any case in which pulmonary tuberculosis was a complication.

Fifteen patients received treatment by this method. Of the fifteen, three made an almost complete recovery, seven showed marked improvement and five were unimproved. Unfortunately, the improvement was gradual, and in many instances patients who failed to show rapid

2. Sieben, Hubert: Deutsche med. Wchnschr. **50**:304 (March) 1924.

Details of Treatment in Fifteen Cases of Lupus Erythematosus Discoides

Case Number	Duration of Treatment	Initial Dose of Old Tuberculin	Final Dose of Old Tuberculin	Local Reactions		Focal Reactions	Result of Treatment
				Date	Dosage		
F46505	6/18/23 to 12/28/23	0.1 cc. of 1:1,000,000	0.6 cc. of 1:100,000	7/ 9/23 9/ 7/23 2/14/23	0.1 cc. of 1:100,000 0.2 cc. of 1:100,000 0.3 cc. of 1:100,000	Occurred with the local reactions	Completely disappeared, leaving a smooth, white atrophy
F67041	7/ 2/23 to 9/19/24	0.1 cc. of 1:100,000,000	0.1 cc. of 1:100	8/17/23 9/17/23 10/29/23 1/14/24	0.3 cc. of 1:10,000,000 0.2 cc. of 1:1,000,000 0.1 cc. of 1:100,000 0.1 cc. of 1:10,000	9/17/23, 0.2 cc. of 1:1,000,000 1/14/24, 0.1 cc. of 1:10,000	Almost completely disappeared
F48919	7/ 2/23 to 7/ 6/24	0.1 cc. of 1:100,000,000	0.1 cc. of 1:100,000,000	9/ 8/23 Patient had many reactions; had to be discharged on account of severity of reactions	0.05 cc. of 1:1,000,000	9/8/25, 0.05 cc. of 1:1,000,000	Much improved
F38348	6/18/23 to 1/21/24	0.1 cc. of 1:1,000,000	0.1 cc. of 1:1,000,000	7/ 6/23 10/12/23 11/ 9/23 1/14/24	0.33 cc. of 1:1,000,000 0.2 cc. of 1:100,000 0.2 cc. of 1:1,000,000 0.3 cc. of 1:1,000,000	10/12/23 1/14/24, patient developed an adenitis; treatment discontinued	Moderate improvement; no extension; some lesions disappeared
F37317	8/13/23 to 5/26/24	0.1 cc. of 1:100,000,000	0.1 cc. of 1:1,000,000	9/14/23 1/ 5/23 3/29/24 5/26/24	0.05 cc. of 1:1,000,000 0.5 cc. of 1:10,000,000 0.05 cc. of 1:100,000 0.5 cc. of 1:1,000,000	3/29/24 5/26/24	Improved; no extension; some lesions entirely cleared up
F21182	8/24/23 to 9/ 8/24	0.1 cc. of 1:100,000,000	0.1 cc. of 1:100	9/24/23 10/12/23 12/17/23 5/12/24 9/ 5/24	0.1 cc. of 1:1,000,000 0.3 cc. of 1:1,000,000 0.2 cc. of 1:10,000 0.1 cc. of 1:1,000 0.1 cc. of 1:100	.....	Extension arrested; infiltration and scaling less marked; many lesions disappeared
F68632	11/22/23 to 4/23/24	0.1 cc. of 1:100,000,000	0.1 cc. of 1:1,000,000	3/19/24	0.2 cc. of 1:1,000,000	.....	Improved; extension arrested; lesions lighter in color, less scaly
F62824	1/23/23 to 7/31/24	0.1 cc. of 1:1,000,000	0.1 cc. of 1:10,000	1/ 9/24	0.1 cc. of 1:100,000	.....	Slightly improved, less red and scaly, with arrest of extension
F70064	2/23/24 to 9/22/24	0.1 cc. of 1:100,000,000	0.2 cc. of 1:1,000	8/29/24	0.1 cc. of 1:1,000	.....	Improved; arrest of spreading
F89466	7/24/23 to 5/18/24	0.1 cc. of 1:100,000,000	0.1 cc. of 1:1,000,000	11/20/23 3/10/24	0.1 cc. of 1:1,000,000 0.1 cc. of 1:100,000	Marked focal and general reactions	Improved; arrest of spreading; less redness, scaling and infiltration; some lesions entirely disappeared
F73237	2/29/24 to 4/25/24	0.1 cc. of 1:100,000,000	0.1 cc. of 1:10,000,000	.....	.....	.....	No change noted
F20140	7/ 2/23 to 11/ 6/23	0.1 cc. of 1:10,000,000	0.1 cc. of 1:1,000	.....	.....	.....	No change
F61404	10/ 8/23 to 6/ 2/24	0.1 cc. of 1:100,000,000	0.1 cc. of 1:1,000	.....	.....	.....	No change
F76877	4/ 7/24 to 5/19/24	0.1 cc. of 1:100,000,000	0.2 cc. of 1:1,000,000	.....	.....	.....	No change
F99342	8/16/23 to 11/26/23	0.1 cc. of 1:10,000,000	0.1 cc. of 1:10,000	.....	.....	.....	No change noted in the lesions

improvement after a few months' treatment ceased to appear for further inoculation. Details of the treatment may be seen in the table.

It was interesting to note throughout the treatment how sensitive the patients were to tuberculin, and that this sensitiveness was especially marked in those cases in which there was the greatest degree of improvement. After many months of treatment there was little difference in the reaction to the initial and to the last dose of tuberculin. This was particularly true in case F48919, as shown in the table, in which the initial dose on July 2, 1923, was 0.1 cc. of a 1:100,000,000 dilution of old tuberculin. On July 6, the same dose caused such a violent reaction that it was decided to terminate the treatment. Throughout the year, the patient reacted to slight increases in dosage of tuberculin, showing both local and focal reactions.

All of the patients in whom there was a focal, or focal and general, reaction to tuberculin showed improvement, the degree being in proportion to the severity of the reaction. There was little or no change in the condition of those patients who had a local reaction. It is noteworthy that harmful effects did not occur from the treatments with tuberculin.

SUMMARY

1. Hypersensitiveness to tuberculin was noted in all cases of lupus erythematosus. The hypersensitiveness was especially marked in those cases in which improvement was noted under tuberculin therapy.

2. If care is taken to see that the patient is not suffering from an active tuberculosis of the viscera, and if precaution is exercised in testing his tolerance to tuberculin, we think there will be little reason to fear dangerous reactions. On the contrary, with moderate, graduated doses, the patient's general health often showed improvement, with increase in weight, during the course of treatment; ill effects were not observed in any instance. We believe that the harmful results reported by others from the use of tuberculin in treating lupus erythematosus were due to the injection of too large doses.

PREDISPOSING FACTORS OF ECZEMA

L. G. BEINHAUER, M.D.
PITTSBURGH

The classification of the causes of eczema has not been changed in recent years and physicians are, for the lack of something more specific, forced to accept:

1. External or exciting
   (a) Parasitic
   (b) Occupational
   (c) Irritation, excluding occupation
2. Internal (constitutional) or predisposing

With such a classification in mind, a series of 114 private cases of eczema (group A) was thoroughly studied in order to obtain any data bearing on the relationship of associated constitutional pathologic conditions and the presence of eczema in the same patient. Infantile eczema

TABLE 1.—*Data Obtained from Patients in Group A**

Heredity	
Only 8 of 114 patients gave a familial history	
Sex	
Of 114 patients, 67 were males and 47 females	
Age	
45 patients between 16-30 years	
37 patients between 30-40 years	
28 patients between 45-60 years	
4 patients between 60-80 years	
Duration	
1 week to 1 year	52 cases
1 year to 10 years	40 cases
10 to 20 or more years	22 cases
Types	
Acute erythematous	29 cases
Acute papular	5 cases
Acute vesicular	43 cases
Acute pustular	2 cases
Chronic squamous	32 cases
Chronic fissured	3 cases
Location	
Generalized	19 cases
Palms and soles	20 cases
Legs	10 cases
Head, neck, face	17 cases
Ears	3 cases
Hands and forearms	40 cases
Genitalia	5 cases

* In group B, chosen for comparison, 67 patients were males and 47 were females. The age limit varied from 15 to 70 years with the majority between 15 and 45 years.

was excluded, and as far as possible the selections were made to exclude any eruption of which the external causative factor was known. In order to check the results, a similar study was carried out on 114 private patients (group B) who manifested dermatologic lesions other than eczema, and a comparison was made of the observations. This group (B) included the most commonly encountered skin diseases: acne vulgaris, 15 cases; psoriasis, 15 cases; impetigo contagiosa, 12 cases;

dermophytosis, 21 cases; scabies, 13 cases; seborrheic eczema, 13 cases; urticaria, 13 cases and pityriasis rosea 12 cases. The results as recorded are presented in table 1.

An analysis of the results revealed some striking facts. Every patient of group A (100 per cent) manifested clinical pathologic condi-

TABLE 2.—*Pathologic Observations (Single)*

Group A		Group B	
Nervous System			
2 cases	Overwork	0 case	
2 cases	Worry	0 case	
1 case	Masturbation	1 case	(acne)
Total 5 cases		Total 1 case	
Gastro-Intestinal			
15 cases	Constipation	5 cases	(acne)
1 case	Mucus colitis	0 case	
1 case	Gall stones	0 case	
0 case	Intestinal putrefaction	1 case	(urticaria)
Total 17 cases		Total 6 cases	
Glandular			
3 cases	Hyperthyroidism	0 case	
3 cases	Hypothyroidism	0 case	
1 case	Adenoma of thyroid	0 case	
2 cases	Menopause	2 cases	(urticaria)
Total 9 cases		Total 2 cases	
Genito-Urinary			
4 cases	Hypertrophy of prostate	2 cases	(seborrheic eczema)
2 cases	Chronic prostatitis	0 case	
0 case	Chronic nephritis	2 cases	(psoriasis)
Total 6 cases		Total 4 cases	
Infection of Teeth			
Total 3 cases		1 case	(acne)
Infection of Tonsils			
Total 1 case		1 case	(pityriasis rosea)
Blood			
7 cases	Hyperglycemia	0 case	
1 case	Chlorosis	0 case	
Total 8 cases		Total 0 case	
Miscellaneous			
1 case	Retained placenta	0 case	
1 case	Arthritis chronica	0 case	
1 case	Salpingitis chronica	0 case	
1 case	Chronica tuberculosis of lungs	0 case	
1 case	Post arsenical neuritis	0 case	
Total 5 cases		Total 0 case	
Grand total 54 cases		Grand total 15 cases	

tions, whereas only twenty-seven patients of group B (23.6 per cent) were similarly affected. The most common diseases were gastro-intestinal, glandular, genito-urinary, focal infectious, hyperglycemic, nervous and miscellaneous, in the order named. In most instances, associated disease in group A was more common and frequent than in group B. The ratios of frequency of associated conditions in group A and group B were: gastro-intestinal 4.5:1; glandular 5:1; hyper-

TABLE 3.—*Pathologic Observations (Multiple)*

Group A		Group B
	Gastro-Intestinal—Constipation with:	
4 cases	Hypothyroidism	0 case
2 cases	Hyperthyroidism	0 case
4 cases	Chronica appendicitis	0 case
1 case	Hernia	0 case
6 cases	Dysmenorrhea	6 cases
4 cases	Infection of teeth	0 case
3 cases	Syphilis	0 case
1 case	Menopause	0 case
4 cases	Infection of tonsils	0 case
0 case	Amenorrhea	1 case
Total 29 cases		Total 7 cases
	Glandular—Dysmenorrhea with:	
3 cases	Cystic ovarian degeneration	0 case
2 cases	Hypothyroidism	0 case
2 cases	Infection of teeth	0 case
0 case	Mastitis	1 case (acne)
Total 7 cases		Total 1 case
	Genito-Urinary—Prostatic Hypertrophy with:	
3 cases	Pyelitis	0 case
1 case	Chronic nephritis	0 case
2 cases	Papilloma of bladder	0 case
3 cases	Cystitis	0 case
1 case	Stricture	0 case
1 case	Infection of teeth	0 case
Total 11 cases		Total 0 case
	Infection of Tonsils—Associated with:	
8 cases	Infection of teeth	0 case
2 cases	Arthritis	2 cases (urticaria)
1 case	Mitral stenosis	0 case
Total 11 cases		Total 2 cases
	Syphilis—Associated with:	
0 case	Aortic regurgitation	2 cases (dermophytosis)
1 case	Varicose veins	0 case
Total 1 case		Total 2 cases
Grand Total 60 cases		Grand total 12 cases

TABLE 4.—*Classification of Pathologic Observations in Groups A and B*

Pathologic Observations in These Series were Represented by:		
Group A		Group B
46 cases or 40.3%	Gastro-intestinal	13 cases or 11.4%
5 cases or 4.3%	Nervous system	1 case or .9%
16 cases or 14.1%	Glandular syndrome	3 cases or 2.6%
7 cases or 6.1%	Hyperglycemia	0 case or 0%
17 cases or 14.9%	Genito-urinary	4 cases or 3.5%
4 cases or 3.5%	Syphilis	2 cases or 1.7%
13 cases or 3.5%	Teeth and tonsillar infection	4 cases or 3.5%
6 cases or 5.3%	Miscellaneous	0 case or 0%
114 cases or 100%	Total	27 cases or 23.6%

glycemic 6:0; genito-urinary 4:1; syphilitic 2:1; focal infectious 3:1, and nervous 4.5:1. If one studies these observations, one is led to believe that a group of medical complications, rather than a skin manifestation, is being dealt with, and this is especially true in group A. These results prompt the belief that constitutional disease is necessary or must be associated with eczema before the clinical picture of this condition can be produced. Exactly what this relationship is cannot be stated definitely; however, it seems that such a relationship must exist as an associated and dependent factor which predisposed the skin to the eruptive stage. Although it is advisable not to rely on constitutional factors alone, because external or nonsystemic irritants can produce the same clinical picture, nevertheless, it is not unreasonable to suppose that some predisposing factor must be present in the skin before eczema can be produced. This statement may be questioned, but, judging by the statistics from this series, it appears to be a logical assertion.

Disease of the organs of elimination and metabolism was present in 69.3 per cent of the cases in group A, as compared to 17.5 per cent in group B. These observations point out the necessity of investigation along the lines of elimination and metabolism, and show the necessity for individual case study in eczema. It appears that future success in the treatment of eczema must be attained by intense study along the lines of internal medicine, if one wishes to solve the problems for the benefit of one's patients. The results obtained in treating eczema were more satisfactory and more encouraging when the patients were thoroughly studied and then treated according to the observations made.

SUMMARY

1. Every case of eczema studied in this series revealed definite constitutional disease.

2. Only twenty-seven patients (23.6 per cent) of the other group revealed definite constitutional disease.

3. Impaired function of the excretory and metabolic systems (69.3 per cent) comprised the most common pathologic conditions associated with eczema.

4. Constitutional disease predisposes to eczema.

5. Successful treatment of eczema requires individualized medical study.

5026 Jenkins Arcade.

THE SUGAR CONTENT OF WHOLE BLOOD IN SYPHILIS*

ISADORE ROSEN, M.D.
AND
FRANCES KRASNOW, PH.D.
NEW YORK

The sugar content of the blood has interested many. Various investigators have suggested that there may be some relation between the sugar content of the blood of syphilitic patients and the progress of the disease. We undertook this study to ascertain any possible correlations.

With a few exceptions, the 201 blood samples forming the basis of the present paper were obtained from ambulant patients who came to the clinic. Therefore, there was no regulation of the intake of food, when food was permitted. No special attempt was made to select the patients; they were all suffering from syphilis. Among them were men and women, adults and children, white and colored, treated and untreated persons. In these investigations it has not been possible to follow up patients in whom relatively low or high values for sugar were obtained.

The analyses were made on whole blood. The method used was that of Folin and Wu.[1]

The cases have been grouped in three series. The first series consists of patients who were permitted to have their usual meals before being bled (tables 1, 2 and 3); the second series consists of patients who on the day of bleeding took no food before the operation (tables 4, 5 and 6); and the third series consists of a group of patients who were bled both after being permitted to have their usual food and after fasting, i. e., no food was taken on the day of bleeding until after the operation (tables 7, 8 and 9).

Table 1 shows two cases of primary syphilis. In one the blood sugar content was 65 mg. and in the other, 80 mg. Of the seven cases of secondary syphilis, the value for sugar in six was between 70 and 100 mg. per hundred cubic centimeters of whole blood, while in one the sugar content was 110 mg. per hundred cubic centimeters. There were seventeen cases of congenital syphilis. In one, or 6 per cent, the sugar value was below 70 mg. per hundred cubic centimeters; in fourteen, or

* From the Department of Dermatology and Syphilology of Mount Sinai Hospital and the Laboratory of Biological Chemistry, Columbia University College of Physicians and Surgeons.

1. Folin and Wu: J. Biol. Chem. **41**:367, 1920.

82 per cent, between 70 and 100 mg. per hundred cubic centimeters of whole blood and in two, or 12 per cent, above 100 mg. per hundred cubic centimeters.

In table 2 there are ninety-four cases of tertiary syphilis. In nine, or 9 per cent, the sugar content was below 70 mg. per hundred cubic centimeters of whole blood; in sixty-one, or 65 per cent, between 70 and 100 mg. per hundred cubic centimeters and in twenty-four, or 26 per cent, above 100 mg. per hundred cubic centimeters of whole blood.

TABLE 1.—*Blood Sugar Content in Twenty-Six Cases of Primary, Secondary and Congenital Syphilis When Patients Were on an Unrestricted Diet**

Serial No.	Sex	Age	Color	Wassermann Reaction	Diagnosis	Blood Sugar, Mg. per 100 Cc.	Treatment		
							Arsenic	Mercury	Bismuth
32	♂	21	w	±	Primary	65.5	8	..	11
1	♂	35	w	++++	Primary	80.0	2	..	..
95	♂	27	w	++++	Secondary	71.5	2	..	2
109	♂	22	w	++++	Secondary	72.0	6	..	10
84	♀	39	w	++++	Secondary	74.9	14	..	21
30	♂	34	w	++++	Secondary	88.0	1	..	1
103	♂	62	w	++++	Secondary	89.7	..	..	..
50	♀	40	w	0	Secondary	100.0	8	..	19
6	♂	25	w	0	Secondary	110.0	1	..	..
65	♂	10	b	0	Congenital	67.7	33	41	2
63	♀	5	w	++++	Congenital	70.7	..	..	2
83	♂	9	w	++++	Congenital	71.0	3	4	..
62	♀	26	w	++++	Congenital	71.5	35	40	..
49	♀	5	b	++++	Congenital	72.2	38	49	8
73	♂	10	w	+++	Congenital	74.8	16	22	26
66	♂	8	w	0	Congenital	77.5	6	6	6
54	♀	7	w	+	Congenital	79.2	45	47	6
55	♀	7	w	++	Congenital	80.0	32	46	3
120	♀	14	w	±	Congenital	80.0	7	..	15
119	♀	36	w	..	Congenital	80.1	39	68	19
60	♀	7	w	++	Congenital	82.4	36	47	3
58	♂	6	w	++++	Congenital	82.4	6	6	7
39	♀	23	w	0	Congenital	89.0	32	73	9
47	♂	5	w	..	Congenital	98.8	20	..	25
81	♀	30	w	++++	Congenital	114.0	..	..	25
69	♀	27	w	++++	Congenital	115.2	42	50	37

* In table 1, and the following tables, ♂ indicates male; ♀, female; w, white and b, black.

Table 3 summarizes the results in tables 1 and 2. It shows that 68 per cent of the cases in which the patients were given an unrestricted diet fell within the range from 70 to 100 mg. per hundred cubic centimeters of whole blood, 9 per cent were below 70 mg. per hundred cubic centimeters of whole blood and 23 per cent were above 100 mg. per hundred cubic centimeters of whole blood.

The results with patients who on the day of bleeding took no food prior to the operation are listed in tables 4 and 5. In all of the five cases of secondary syphilis the blood sugar was between 70 and 100 mg. per hundred cubic centimeters of whole blood. This also is true in the six cases of congenital syphilis. Sixty-three, or

TABLE 2.—*Blood Sugar Content in Ninety-Four Cases of Tertiary Syphilis When Patients Were on an Unrestricted Diet*

Serial No.	Sex	Age	Color	Wassermann Reaction	Blood Sugar, Mg. per 100 Cc.	Treatment		
						Arsenic	Mercury	Bismuth
3	♂	51	w	+	60.0		Several courses	
82	♂♀	35	w	++++	62.7	17	34	40
64	♂♀	51	w	0	67.1	44	42	46
24	♂♀	35	w	0	67.2	7	8	..
22	♂♀	38	w	++++	67.7	8	16	..
87	♂♀	10	w	++	67.7	16	..	47
80	♂♀	26	w	++++	67.8	49	10	26
4	♂	37	w	0	68.0		Several courses	
71	♂♀	39	w	+++	69.2	28	42	7
27	♂♀	45	w	0	70.2	17	37	18
59	♂♀	41	w	++++	70.2	14	23	19
68	♂♀	..	w	0	70.2	35	28	..
77	♂♀	39	w	0	72.0	13	81	8
113	♂♀	48	w	++++	73.3	..	..	25
2	♂♀	28	w	++++	74.0	3	..	..
72	♂♀	35	w	0	74.2	3	20	10
79	♂♀	47	w	0	74.9	3	..	1
116	♂♀	34	w	0	74.9	14	12	36
46	♂♀	45	w	++++	75.5	20	..	..
78	♂♀	25	w	++	75.5	30	66	20
33	♂♀	20	w	0	76.2	7	12	..
57	♂♀	40	w	..	76.3	22	52	28
44	♂♀	40	w	++++	77.0	50	..	..
74	♂♀	51	w	+++	77.0	36	54	54
8	♂♀	22	w	+	78.0	5	..	19
9	♂♀	59	w	0	78.0	21	..	21
36	♂♀	40	w	+++	78.0	8	..	8
53	♂♀	45	w	..	79.2	43	39	29
85	♂♀	49	w	+	79.2	12	..	75
13	♂♀	50	w	++++	79.8	6	8	38
38	♂♀	49	w	0	80.7	21	34	..
51	♂♀	60	w	+++	80.8	3	32	5
26	♂♀	7	w	0	81.5	..	..	..
48	♂♀	19	w	++++	81.5	5	6	..
12	♂♀	34	w	++++	81.7	4	7	..
37	♂♀	33	w	++	82.4	36	70	2
16	♂♀	60	w	+++	85.0	..	..	74
121	♂♀	47	w	+++	85.5	14	..	46
90	♂♀	45	w	0	85.7	21	25	12
97	♂♀	50	w	0	86.0	20	30	..
96	♂♀	28	w	0	86.5	30	46	6
35	♂♀	37	w	0	88.0	33	38	5
106	♂♀	45	w	0	88.0	53	32	38
45	♂♀	46	w	++++	89.0	..	..	10
21	♂♀	32	w	++++	89.0	24	36	43
31	♂♀	31	b	+++	89.0	9	..	19
70	♂♀	42	w	++++	89.0	25	..	36
89	♂♀	48	w	+++	89.9	..	..	21
41	♂♀	32	w	0	90.0	2	..	20
114	♂♀	51	w	++++	90.0	35	68	41
43	♂♀	35	w	+	91.0	15	..	..
23	♂♀	45	w	+++	92.0	3	..	38
14	♂♀	40	w	0	92.0	32	54	50
11	♂♀	38	w	0	92.0	27	67	39
94	♂♀	41	w	++++	92.0	2	..	2
91	♂♀	58	w	++	93.0	..	..	16
20	♂♀	45	w	++	93.2	..	..	19
7	♂♀	28	w	0	94.7	36	46	8
18	♂♀	35	w	+	95.5	70	81	7
28	♂♀	53	w	..	96.5	..	..	6
29	♂♀	38	w	0	96.5	23	34	..
112	♂♀	42	w	++++	96.8	6	60	..
93	♂♀	35	w	+++	96.9	6	14	..
61	♂♀	45	w	..	97.7	..	..	..
115	♂♀	37	w	0	98.3	11	..	..
92	♂♀	53	w	0	99.0	38	57	..
5	♂♀	48	w	++++	100.0	35	..	..
19	♂♀	47	w	++++	100.0	19	38	..
15	♂♀	26	b	+++	100.0	17	38	..
100	♂♀	45	w	0	100.0	26	42	26
101	♂♀	46	w	0	101.2	24	45	27
122	♂♀	52	w	++++	101.3	6	..	12
52	♂♀	46	w	0	102.5	68	20	..
105	♂♀	60	w	+	103.2	25	25	..
99	♂♀	44	w	0	104.3	54	52	24
111	♂♀	46	w	++++	105.8	25	90	..
117	♀	22	w	++++	113.8	10	..	8

TABLE 2.—*Blood Sugar Content in Ninety-Four Cases of Tertiary Syphilis When Patients Were on an Unrestricted Diet—Continued*

Serial No.	Sex	Age	Color	Wassermann Reaction	Blood Sugar, Mg. per 100 Cc.	Treatment		
						Arsenic	Mercury	Bismuth
40	♂	39	w	0	114.0	45	74	42
42	♀	48	w	++++	114.0	6	12	..
67	♂	49	w	++++	114.2	26	44	49
86	♂♀	40	w	+++	119.2	25	74	15
25	♀	43	b	++	127.0	20	34	24
118	♀	27	b	0	127.8	37	64	..
102	♀	38	w	++++	129.0	30	39	40
34	♂♀	50	w	0	131.0	33	52	..
56	♀	43	w	..	132.0	..	..	..
110	♂	41	w	+	133.5	27	40	..
107	♂	57	w	..	134.8	..	..	29
108	♂	48	w	+	135.5	39	38	12
104	♂♀	35	w	+	136.5	6	..	37
88	♀	62	w	0	160.0	16	44	..
10	♀	..	w	++++	170.0	..	..	11
123	♂	44	w	++++	171.0	12	24	11
75	♂	43	w	0	208.4	4	2	2

TABLE 3.—*Summary of Blood Sugar Content in One Hundred and Twenty Cases of Syphilis When Patients Were on an Unrestricted Diet*

	Primary	Secondary	Congenital	Tertiary
Number of patients	2	7	17	94
Sugar values in mg. per 100 cc. of whole blood:				
Below 70	1	0	1	9
70 to 100	1	6	14	61
Above 100	0	1	2	24

TABLE 4.—*Blood Sugar Content in Cases of Secondary and Congenital Syphilis When Patients Were Permitted no Food Before Operation*

Serial No.	Sex	Age	Color	Wassermann Reaction	Diagnosis	Blood Sugar, Mg. per 100 Cc.	Treatment		
							Arsenic	Mercury	Bismuth
12	♂	34	w	++++	Secondary	71.3	8	..	14
37	♂	31	w	++++	Secondary	73.9	8	..	6
74	♀	32	w	0	Secondary	81.5	2	..	27
25	♂	48	b	++++	Secondary	87.0	8	..	4
24	♀	25	b	0	Secondary	91.0	5	6	..
17	♀	30	w	++++	Congenital	71.8	6	4	29
40	♀	23	w	0	Congenital	74.6	45	76	34
20	♀	25	w	++++	Congenital	74.8	4	..	7
36	♂	11	w	++++	Congenital	84.4	6	..	12
32	♂	9	w	++++	Congenital	90.6	6	..	10
33	♂	9	w	++++	Congenital	94.9	6	8	..

90 per cent of the patients suffering from tertiary syphilis showed a sugar value ranging from 70 to 100 mg. per hundred cubic centimeters, while seven, or 10 per cent, were above 100 mg. per hundred cubic centimeters. Table 6 gives a summary of the observations on blood samples obtained from eighty-one patients who had no food before the operation on the day of bleeding. Ninety-one per cent of the cases fell between 70 and 100 mg.; 9 per cent had sugar values above 100 mg. per hundred cubic centimeters of whole blood.

TABLE 5.—*Blood Sugar Content in Seventy Cases of Tertiary Syphilis When Patients Were Permitted No Food Before Operation*

Serial No.	Sex	Age	Color	Wassermann Reaction	Blood Sugar, Mg. per 100 Cc.	Treatment		
						Arsenic	Mercury	Bismuth
60	♂	29	w	++++	70.8	45	10	..
45	♀	18	w	0	71.0	10	2	19
38	♀	20	w	++++	71.6	8	10	..
35	♂♀	30	w	0	71.8	26	41	15
19	♀	42	w	0	72.0	27	..	52
13	♂	39	w	++++	72.0	4	..	9
10	♀	50	w	+++	72.3	12	..	55
59	♀	44	w	++	73.0	26	42	30
56	♀	28	w	0	73.4	28	39	..
63	♂	36	w	++++	74.8	19	..	39
66	♀	45	w	0	74.8	22	15	18
81	♀	41	w	++	75.0	38	68	22
49	♀	42	w	++++	75.2	10	20	..
9	♀	42	w	++++	75.4	43	66	17
18	♀	41	w	++++	75.8	16	23	23
21	♀	45	w	++++	76.5	22	39	12
4	♀	36	w	+++	78.1	7	..	17
2	♀	38	w	0	78.2	27	65	45
47	♀	40	w	0	78.3	12	3	20
71	♀	26	w	++++	78.5	2	5	..
58	♀	53	w	++	79.2	28	45	50
64	♀	46	w	++++	79.4	83	40	36
77	♀	..	w	++++	79.8	1	4	..
80	♀	26	w	++	80.0	50	44	28
82	♀	22	w	++++	80.0	10	..	17
75	♀	39	b	++	80.0	6	6	21
67	♂♀	45	w	++++	80.0	26	44	30
41	♀	49	w	++	80.0	5	3	80
39	♀	35	w	++++	80.5	21	34	43
50	♂♀	49	w	±	81.3	12	..	23
34	♀	32	w	0	82.1	15	..	17
51	♀	39	w	++++	82.5	13	21	..
52	♀	45	w	0	82.7	..	..	26
57	♀	19	b	..	82.7	16	16	8
73	♀	31	w	++++	83.4	1	3	..
70	♀	44	w	++++	85.1	70	52	29
79	♀	25	w	+	85.8	..	3	..
29	♂♀	55	w	++	86.0	23	42	2
7	♂♀	47	w	++++	86.2	19	38	..
62	♂	31	w	0	86.3	6	..	24
69	♂♀	53	w	++	87.0	18	27	41
78	♀	31	w	++++	87.0	30	36	48
3	♀	35	w	0	87.0	..	12	..
26	♀	39	b	0	87.1	10	13	..
11	♀	35	w	++++	88.1	15	36	4
8	♀	45	w	0	88.4	37	38	..
16	♀	51	w	0	88.7	35	83	44
28	♀	48	w	++++	89.0	6	14	..
30	♂♀	30	b	++++	89.0	1	..	1
53	♀	49	w	++++	89.0	6	..	38
15	♀	40	w	++	89.7	9	..	14
76	♀	46	w	0	89.8	43	50	33
83	♀	43	w	++++	90.0	..	..	..
23	♀	45	w	+++	90.0	..	..	39
6	♀	45	w	0	90.0	17	31	27
55	♀	56	w	0	92.6	26	49	50
72	♀	27	w	0	93.5	8	18	..
61	♀	43	w	++++	94.5	..	..	28
46	♀	20	w	++++	94.6	14	..	22
31	♀	42	w	..	96.4	11	12	28
65	♀	68	w	+++	96.5	2	2	80
22	♀	31	b	+++	97.5	6	..	7
43	♀	52	w	+++	98.0	41	54	58
27	♂♀	47	w	0	101.0	13	12	36
44	♀	40	w	+++	101.3	27	76	15
1	♀	44	w	+	109.0	27	65	45
68	♀	47	w	++++	110.0	1	19	50
14	♀	58	w	++++	120.2	8	..	12
54	♂♀	49	w	0	128.7	33	52	4
42	♀	38	w	++++	217.0	39	69	36

Our third series of observations was made on a group of thirty-eight cases. These patients were bled twice: once, when they were on an unrestricted diet and a second time when they were permitted no food before bleeding. Tables 7 and 8 show the individual analyses

TABLE 6.—*Summary of Blood Sugar Content in Eighty-One Cases of Syphilis When Patients Were Permitted No Food Before Operation*

	Primary	Secondary	Congenital	Tertiary
Number of patients	0	5	6	70
Sugar values in mg. per 100 cc. of whole blood:				
Below 70	..	0	0	0
70 to 100	..	5	6	63
Above 100	..	0	0	7

TABLE 7.—*Blood Sugar Content in Thirty-Eight Cases of Syphilis When Patients Were on an Unrestricted Diet*

Serial No.	Sex	Age	Color	Wassermann Reaction	Diagnosis	Blood Sugar, Mg. per 100 Cc.	Treatment		
							Arsenic	Mercury	Bismuth
30	♂	34	w	++++	Secondary	88.0	1	..	1
41	♀	32	w	0	Secondary	90.0	..	..	20
50	♀	40	w	0	Secondary	100.0	8	..	19
83	♂	9	w	++++	Congenital	71.0	3	4	..
119	♀	36	w	++	Congenital	80.1	39	68	19
82	♀	35	w	++++	Tertiary	62.7	17	34	40
24	♀	35	w	0	Tertiary	67.0	7	8	..
22	♀	39	w	++++	Tertiary	67.7	8	16	..
80	♀	26	w	++++	Tertiary	67.8	40	10	26
27	♀	45	w	0	Tertiary	70.2	17	27	18
59	♀	41	w	++++	Tertiary	70.2	14	38	19
78	♀	25	w	++	Tertiary	75.5	30	66	29
74	♀	51	w	+++	Tertiary	77.0	30	54	54
36	♀	40	w	++	Tertiary	78.0	8	..	8
85	♀	49	w	++	Tertiary	79.2	12	..	75
53	♀	45	w	0	Tertiary	79.2	43	39	33
13	♀	47	w	++++	Tertiary	79.8	6	8	38
48	♀	20	w	++++	Tertiary	81.5	5	6	..
16	♀	69	w	++++	Tertiary	85.0	..	..	74
90	♀	45	w	0	Tertiary	85.7	15	25	12
21	♀	31	w	++++	Tertiary	89.0	24	36	43
31	♀	31	b	+++	Tertiary	89.0	9	..	19
23	♀	45	w	+++	Tertiary	92.0	3	..	38
11	♀	38	w	0	Tertiary	92.0	27	65	29
20	♀	45	w	0	Tertiary	93.2	..	..	19
112	♀	42	w	++++	Tertiary	96.8	6	16	..
93	♀	35	w	+++	Tertiary	96.9	6	..	14
19	♀	47	w	++++	Tertiary	100.0	19	38	..
100	♀	44	w	++	Tertiary	100.0	26	42	26
99	♀	44	w	++	Tertiary	104.3	54	52	..
117	♀	22	w	++++	Tertiary	113.8	10	..	8
81	♀	30	w	++++	Tertiary	114.0	6	4	29
67	♂	49	w	++++	Tertiary	114.3	26	44	29
86	♀	40	w	+++	Tertiary	119.2	25	74	15
102	♀	53	w	++	Tertiary	129.0	28	45	45
34	♂	49	w	0	Tertiary	131.0	33	52	..
56	♀	43	w	++++	Tertiary	132.0	..	..	..
10	♀	58	w	++++	Tertiary	170.0	6	..	12

and table 9 gives a comparative summary. The blood sugar content of 66 per cent of the patients on an unrestricted diet was in the range from 70 to 100 mg. per hundred cubic centimeters of blood compared with 92 per cent of the patients who fasted before being bled. Twenty-four per cent of the former group gave results for blood sugar above 100 mg. per hundred cubic centimeters as compared with only

8 per cent in the group of patients who fasted. None of the latter showed a sugar content below 70 mg. per hundred cubic centimeters of blood, while 10 per cent of the patients on an unrestricted diet had a sugar content below 70 mg. per hundred cubic centimeters. These obser-

TABLE 8.—*Blood Sugar Content in Thirty-Eight Cases of Syphilis. Patients Permitted No Food Before Operation*

Serial No.	Sex	Age	Color	Wassermann Reaction	Diagnosis	Blood Sugar, Mg. per 100 Cc.	Treatment		
							Arsenic	Mercury	Bismuth
12	♂	34	w	++++	Secondary	71.3	1	..	1
47	♀	40	w	0	Secondary	78.3	8	..	19
74	♀	32	w	0	Secondary	81.5	2	..	20
81	♀	36	w	++	Congenital	75.0	39	68	19
33	♂	9	w	++++	Congenital	94.9	3	4	..
38	♀	20	w	++++	Tertiary	71.6	5	6	..
17	♀	30	w	++++	Tertiary	71.8	6	4	29
59	♀	44	w	++	Tertiary	73.0	26	42	26
66	♀	45	w	0	Tertiary	74.8	15	25	12
49	♀	42	w	++++	Tertiary	75.2	6	16	..
18	♀	41	w	++++	Tertiary	75.8	14	38	19
4	♀	35	w	+++	Teritary	78.1	6	..	14
2	♀	38	w	0	Tertiary	78.2	27	65	29
58	♀	53	w	++	Tertiary	79.2	28	45	45
80	♀	26	w	++++	Tertiary	80.0	49	10	26
67	♂	49	w	++++	Tertiary	80.0	26	44	29
41	♀	49	w	++	Tertiary	80.0	12	..	75
82	♀	22	w	++++	Tertiary	80.0	10	..	8
39	♀	35	w	++++	Tertiary	80.5	17	34	40
51	♀	39	w	++++	Tertiary	82.5	8	16	..
52	♀	45	w	0	Tertiary	82.7	..	..	19
70	♀	44	w	++++	Tertiary	85.1	54	52	..
7	♀	47	w	++++	Tertiary	86.2	19	38	..
3	♀	35	w	0	Tertiary	87.0	7	8	..
78	♀	31	w	++++	Tertiary	87.0	24	36	43
15	♀	40	w	++	Tertiary	89.7	8	..	8
76	♀	45	w	0	Tertiary	89.8	43	30	33
0	♀	45	w	0	Tertiary	90.0	17	27	18
83	♀	43	w	++++	Tertiary	90.0	..	..	..
23	♀	45	w	++++	Tertiary	90.0	3	..	38
65	♀	69	w	+++	Tertiary	96.5	..	..	74
22	♀	31	b	+++	Tertiary	97.5	9	19	..
43	♀	51	w	+++	Tertiary	98.0	36	54	54
68	♀	47	w	++++	Tertiary	100.0	6	8	38
48	♀	25	w	++	Tertiary	100.2	30	66	20
44	♀	40	w	+++	Tertiary	101.3	25	74	15
14	♀	58	w	++++	Tertiary	120.0	6	12	..
54	♂	49	w	0	Tertiary	128.7	33	52	..

TABLE 9.—*Summary of Comparative Results in Thirty-Eight Patients on Restricted and Unrestricted Diets*

	Unrestricted Diet			Restricted Diet (No Food Before Bleeding)		
	Secondary	Congenital	Tertiary	Secondary	Congenital	Tertiary
Number of cases	3	2	33	3	2	33
Sugar values in mg. per 100 cc. of whole blood:						
Below 70	0	0	4	0	0	0
70 to 100	3	2	20	3	2	30
Above 100	0	0	9	0	0	3

vations correspond closely with those in tables 3 and 6. The low or high values in the first series (patients on unrestricted diet) do not always correspond respectively to low or high values in the second series (patients on restricted diet). Table 10 clarifies this statement.

SUMMARY

1. One hundred and twenty syphilitic patients were studied. Of these, 68 per cent showed a blood sugar content within the range from 70 to 100 mg. per hundred cubic centimeters of whole blood; 9 per cent showed a value below 70 mg. per hundred cubic centimeters and 23 per cent a value above 100 mg. per hundred cubic centimeters.

2. Of eighty-one syphilitic patients who had no food before the operation on the day of bleeding, the blood sugar value in 91 per cent fell between 70 and 100 mg. and 9 per cent gave values above 100 mg. per hundred cubic centimeters of whole blood.

3. The percentage of the patients who fasted and whose blood sugar values were between 70 and 100 mg. was greater than that of the patients on an unrestricted diet.

4. The blood sugar content was not below 70 mg. per hundred cubic centimeters of whole blood in any of the patients who fasted, while that of 10 per cent of the patients on an unrestricted diet fell below 70 mg. per hundred cubic centimeters.

TABLE 10.—*Blood Sugar Content in Syphilis; Comparative Results with Restricted and Unrestricted Diets*

Serial No.	Sex	Age	Color	Wassermann Reaction	Diagnosis	Blood Sugar, Mg. per 100 Cc.	
						Unrestricted Diet	Restricted Diet
19,7	♀	47	w	++++	Tertiary	100.0	86.2
20,52	♀	45	w	0	Tertiary	93.2	82.7
16,65	♀	69	w	+++	Tertiary	85.0	96.5
80,80	♀	26	w	++++	Tertiary	67.8	80.0
30,12	♂	34	w	++++	Secondary	88.0	71.3
11,2	♀	38	w	0	Tertiary	92.0	78.2
24,3	♀	35	w	0	Tertiary	67.0	87.0
50,47	♀	40	w	0	Secondary	100.0	78.3
10,14	♀	58	w	++++	Tertiary	170.0	120.0
31,22	♀	31	b	+++	Tertiary	89.0	97.5
86,44	♀	40	w	+++	Tertiary	119.2	101.3
78,48	♀	25	w	++	Tertiary	75.5	100.2
34,54	♂	49	w	0	Tertiary	131.0	128.7
41,74	♀	32	w	0	Secondary	90.0	81.5
13,68	♀	47	w	++++	Tertiary	79.8	100.0
119,81	♀	36	w	++	Congential	80.1	75.0
53,76	♀	45	w	0	Tertiary	79.2	89.8
90,66	♀	45	w	0	Tertiary	85.7	74.8
102,58	♀	53	w	++	Tertiary	129.0	79.2
48,38	♀	20	w	++++	Tertiary	81.5	71.6
83,33	♂	9	w	++++	Congenital	71.0	94.9
23,23	♀	45	w	+++	Tertiary	92.0	90.0
99,70	♀	44	w	++++	Tertiary	104.3	85.1
67,67	♂	49	w	++++	Tertiary	114.2	80.0
27,6	♀	45	w	0	Tertiary	70.2	90.0
59,18	♀	41	w	++++	Tertiary	70.2	75.8
21,78	♀	31	w	++++	Tertiary	89.0	87.0
82,39	♀	35	w	++++	Tertiary	62.7	80.5
100,59	♀	44	w	++	Tertiary	100.0	73.0
112,49	♀	42	w	++++	Tertiary	96.8	75.2
85,41	♀	49	w	++	Tertiary	79.2	80.0
81,17	♀	30	w	++++	Tertiary	114.0	71.8
22,51	♀	39	w	++++	Tertiary	67.7	82.5
36,15	♀	40	w	++	Tertiary	78.0	89.7
117,82	♀	22	w	++++	Tertiary	113.8	80.0
93,4	♀	35	w	+++	Tertiary	96.9	78.1
56,83	♀	43	w	++++	Tertiary	132.0	90.0
74,43	♀	51	w	++++	Tertiary	77.0	98.0

5. The blood sugar value of only 9 per cent of the patients who fasted was above 100 mg. as compared with 24 per cent of those on an unrestricted diet.

6. Patients who showed a low or high blood sugar content when on an unrestricted diet did not always give a corresponding value when fasting.

LATTICE FIBERS

THEIR DIAGNOSTIC VALUE IN EPITHELIOMA

STUART C. WAY, M.D.
Clinical Instructor in Dermatology, Stanford University
SAN FRANCISCO

In normal connective tissues, such as the corium, there are fibrils, fibers and bundles of mesenchymal origin that stain with ordinary connective tissue stains (Van Gieson's). Specific stains for elastic tissue demonstrate another type of fiber and fibril, the elastic fibers of the area. In pathologic conditions, such as inflammatory and neoplastic processes, delicate fibrils appear which are specifically stained only by silver impregnation methods. These delicate, immature connective tissue fibrils are termed lattice fibers or "Gitterfasern." They often form a close-meshed network, yet they should be carefully differentiated from the older connective tissue fibers and from the elastic tissue fibers that occur in normal conditions.

When produced experimentally, as in the trichophytin reaction, lattice fibers may be observed as early as the end of the second day, according to Way and Klövekorn.[1] They are first seen around the small arterioles, from the endothelial cells of which they appear to arise. Their actual origin is disputed, but most observers believe that the fibers arise mainly from the endothelium of the blood vessels. A study of their appearance in sarcoma, melanocarcinoma and other allied conditions suggests, however, that this is not their only source, but that they may also arise from endothelial cells of other origin and from fibroblasts.

If lattice fibers are young connective tissue fibers, is there any justification for the term "lattice fibers," or does not the use of both terms suggest an ambiguous terminology? The justification for the term lies in the fact that connective tissue fibers are a normal constituent, while lattice fibers are an indication of a pathologic process, and are found only in such conditions. When both are present, the difficulty in differentiating one from the other, as Hoffmann[2] suggests, may be overcome by counterstaining with Van Gieson's stain after using the Maresch modification of the Bielschowsky method. Normal connective tissue fibers and collagen bundles show a preference for this stain and assume a deep rose color, while lattice fibers remain an intense black. Kryle has shown that lattice fibers and elastic tissue fibers are

1. Way and Klövekorn: Hautkrankheiten und Gitterfasern, Dermat. Ztschr. **48**:148 (Aug.) 1926.

2. Hoffmann, E.: Personal communication.

not identical; it has been observed that as lattice fibers in any area increase in amount, there is a proportional decrease of the elastic fibers, so that in a dense lattice fiber growth, elastic fibers may be completely or almost absent.

The significance of lattice fibers has been variously interpreted. Homma [3] believes that their function is mainly protective, and there is much evidence in support of this. In many diseased conditions, the lattice fibers are destroyed, but in some instances, Zurhelle [4] observed that they matured into collagen bundles, a fact which would indicate that they also have a reparative function.

While I was in Paris, the Histopathological collection at the Hospital Saint Louis, through the kindness of Dr. A. Civatte, was placed at my disposal. It was therefore possible to stain a large number of sections of the epitheliomas by the Maresch modification of the Bielschowsky method, and to study the appearance of the growth of the lattice fiber in each case. After I had examined a large number of biopsy specimens stained by this method, I noted that the lattice fiber growth in similar types of epitheliomas presented a fairly constant microscopic picture, and by comparing the number and the relationship of the lattice fibers to the cancer cells, I saw that the degree of malignancy could be approximately determined, and that this closely agreed with the clinical history.

In considering the different types of epithelioma, the basal cell variety is usually considered to be comparatively benign, the squamous cell variety may be said to be malignant, and the nevo-epitheliomas are highly so, but there may be a great variation in the degree of malignancy in each type. It is generally agreed that the diagnosis between nevus and nevo-epithelioma is often difficult and at times impossible, and this paper is written in the hope that the presentation of the subject from the lattice fiber standpoint may prove of value.

It is of the utmost importance to the dermatologist and to the surgeon that the degree of malignancy of such growths be determined. By malignancy is meant the ability of a tumor to show rapid growth and to produce metastasis. The value of such a determination becomes apparent when we consider the frequency, not only of metastasis, but of the instances in which a benign carcinoma is transformed into a highly malignant one. Darier [5] writes: "Among the highly multiple

3. Homma: Verhalten der Gitterfasern bei Hautkarzinomen, Vortrag auf der Vers. Deutsch. Naturf. u. Aerzte in Leipzig, Sept. 20, 1922.

4. Zurhelle, E.: Ueber den Anteil feinster Bindegewebsfibrillen der sogenannten Gitterfasern am Aufbau syphilitischer und anderer Hautefflor-eszenzen, gleichzeitig ein Beitrag zu ihrer Konsistenz insbesondere zur Harte des Primaraffektes, Dermat. Ztschr. **35**:25, 1922.

5. Darier, J.: Textbook of Dermatology, Philadelphia, Lea & Febiger, 1920, pp. 676, 679, 683.

clinical forms of epithelioma, some possess extreme malignancy while others on the contrary are absolutely benign; these will have to be carefully differentiated." None of us are justified in wondering why this careful differentiation as regards the malignancy of an epithelioma should be so strongly emphasized, for the location, the extent and the degree of the malignancy largely determine the choice of treatment; whether one should employ surgical measures, endothermy, cautery, the roentgen rays or radium alone or in combination. These factors further determine the size of the area to be treated and, what is equally important, whether the regional lymph glands are concerned in the process. As Pusey [6] aptly remarks: "There is always the danger of the transference of carcinoma cells through the lymphatics and the lodgment of these cells in contiguous lymphatic nodes or elsewhere with the production of metastatic growths." There is also the possibility that metastasis has taken place, even though we are unable to show this clinically. Therefore, when an epithelioma is known to be of the malignant type, there is no question but that the regional lymph nodes should be given a prophylactic dose either of the roentgen ray or of radium. Recurrences after treatment are still too frequent, and in many cases these could have been prevented by more thorough and extensive treatment had it been known at the time that the growth under consideration was highly malignant.

Before going further, I shall discuss what is meant by epithelioma. According to Stelwagon:[7] "An epithelioma may be defined as an epithelial new growth with destructive tendency, having its origin in the epithelium of the epidermis or of the glands of the skin." Although numerous classifications of epithelioma exist, for the sake of convenience, the following will be used here: (*a*) basal cell type (basocellulare), (*b*) squamous cell type (spinocellulare), (*c*) intermediate or mixed type and (*d*) nevo-epithelioma.

The basal cell type of epithelioma is usually regarded as a comparatively benign variety, probably arising from the cells of the basal layer of the epidermis or from those of the glands of the skin. While this type does not ordinarily give rise to metastases, these may occur after the transformation of the tumor into the more malignant variety, as sometimes happens. Macleod,[8] in discussing the microscopic changes of a rodent ulcer type of cancer which is comparatively benign, commented on the well marked cellular infiltration, composed largely of

6. Pusey: Principles and Practice of Dermatology, New York, D. Appleton & Co., 1923, p. 898.

7. Stelwagon: Diseases of the Skin, Philadelphia, W. B. Saunders Company, 1907, p. 817.

8. Macleod, J. M. H.: Diseases of the Skin, New York, Paul B. Hoeber, 1920, pp. 1147, 1155, 1158.

plasma cells, which is seen at the margin of the epithelial growth. He states further that the whole epithelial mass is surrounded by a capsule of fibrous tissue due to the condensation of the fibrous stroma caused by the downgrowth, and is divided by fibrous trabeculae.

The squamous cell type of epithelioma is described by Sutton [9] as a malignant growth originating in the squamous layers of the epidermis and characterized by the formation of pearl-like epithelial masses in the interior of the invaded organs. In speaking of this type of epithelioma, Darier [5] says the stroma has a variable structure but is rather scanty as a rule. Macleod [8] emphasizes the fact that the malignant character of the growth is shown by the large number of irregular mitotic figures distributed throughout the epidermal cells, the absence of a basal layer toward the free end of the processes, the spreading of the epithelial cells along the lymphatic spaces to invade the surrounding tissue and the absence of a fibrous capsule.

The intermediate or mixed type may display characteristics of both the basal cell type and the squamous cell type, and in many cases the growth may be due to the transformation of the benign to the malignant type or to a multiple origin.

The term nevo-epithelioma is applied to a malignant type of growth that takes its origin from a nevus usually of the pigmented variety, and it is the most malignant of all forms of cancer. Darier [5] writes that "The glands are promptly involved in this form, which often possesses great malignancy; metastases in the viscera, notably in the liver and lungs, is of common occurrence." Macleod,[8] in speaking of the microscopic changes, states that the surrounding fibrous tissue is rarefied and has no tendency to form a limiting capsule.

For the study of the lattice fibers, the biopsy sections were stained according to the Maresch modification of the Bielschowsky method, which is described in Schmorl,[10] and is as follows:

1. Fix the material preferably in solution of formaldehyde in a 10 per cent dilution and embed in paraffin. The sections should be cut thin (from 4 to 6 microns) and mounted on albuminized glass slides.

2. Run the section down through xylol, absolute, 90 per cent, and 70 per cent alcohol to water, transfering it at once to a 2 per cent silver nitrate solution, where it should remain for from twenty-four to forty-eight hours.

3. Wash briefly in water and then allow the slide to remain one-half hour in a solution which is prepared as follows: To 25 cc. of a 10 per cent silver nitrate solution add 25 drops of a 40 per cent sodium hydroxide solution. Stirring constantly, slowly add aqua ammonia by means of a pipet until the precipitate almost disappears; filter carefully and add distilled water up to 100 cc.

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9. Sutton: Diseases of the Skin, St. Louis, C. V. Mosby Company, 1923, p. 675.

10. Schmorl: Die pathologisch histologischen Untersuchungsmethod, Leipsic, Vogel, 1909, p. 142.

4. Wash as rapidly as possible in distilled water and permit the section to remain one-half hour in solution of formaldehyde in a 5 per cent dilution. As soon as the section is placed in solution of formaldehyde, it should instantly turn black.

5. After washing a few seconds, place section in a 1 per cent gold chloride solution for one hour.

6. Wash in distilled water and then two minutes in a 5 per cent solution of sodium hyposulphite.

7. Wash section thoroughly in water from four to six hours, then counterstain with picrofuchsin, as in Van Gieson's method, if necessary.

8. Run the section up through 70 per cent, 90 per cent and absolute alcohol to xylol and mount in balsam. The lattice fibers are stained a deep black.

LATTICE FIBERS IN VARIOUS TYPES OF EPITHELIOMA

A comparison of the lattice fibers in various types of epitheliomas showed the following characteristics:

In the basal cell type of epithelioma the lattice fibers are dense and are most marked at the border of the cancerous growth. There is a definite line of demarcation between the cancerous growth and the surrounding lattice fibers, which do not have a tendency to penetrate between the cancer cells. A great variation in the rate of growth exists in various tumors of the basal cell type; in the benign type, such as epithelioma adenoides cysticum (Brooke), the lattice fiber growth is much more dense and more extensive than in the more rapidly growing basal cell type (fig. 1).

In the squamous cell type of epithelioma there is a lack of a definite sharp line of demarcation between the cancer cells and the lattice fibers. The surrounding growth of lattice fibers is more irregular in outline; in some places in which individual fibers appear to penetrate into the cancerous growth, the cancer cells penetrate into the lattice fiber network. The extension usually occurs at the border, although lattice fibers are frequently found deeply situated in the cancerous growth and undergoing transformation into collagen (fig. 2). All degrees of these processes exist, depending on the rapidity of growth. In slow growing epitheliomas of the squamous cell type there may be a fairly dense limiting growth of lattice fibers. (fig. 3), while in more malignant growths, the limiting fibers may be few and may occur chiefly between the peripheral cancer cells.

In the intermediate or mixed type of epithelioma the microscopic picture is especially subject to variation; in one part of the section it may resemble the basal cell epithelioma and in another part the squamous cell epithelioma. But whatever the type examined, in determining the malignancy, one should consider the density of the surrounding lattice fibers and the bordering cancer cells and whether the lattice fibers

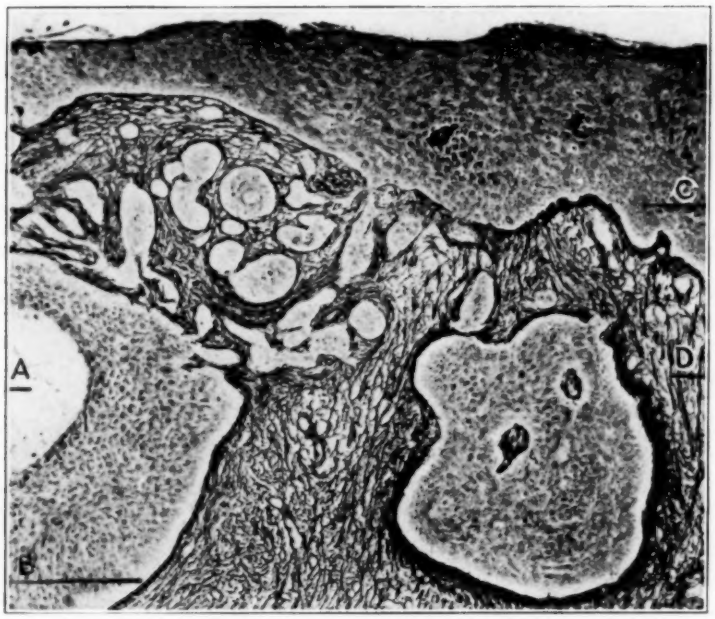

Fig. 1.—Benign type of basal cell epithelioma. *A*. Cystic formation due to central necrosis. *B*. Definite line of demarcation between epithelioma cells and lattice fibers. The dense network of surrounding fibers does not extend into the cancerous growth. *C*. Epidermis. *D*. Lattice fiber network. × 100.

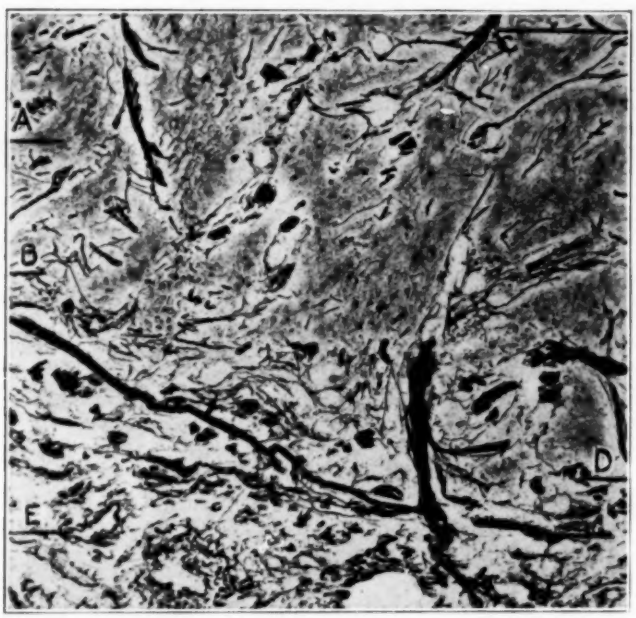

Fig. 2.—Highly malignant type of squamous cell epithelioma. *A*. Cancer cells. *B*. Scanty lattice fiber network at border of cancerous growth which extends into the growth itself. *C*. Collagen fibers. *D*. Absence of a limiting fibrous network. *E*. In contrast to the basal cell type, few lattice fibers are present around the vessels. × 120.

appear to extend into the cancerous growth. In an epithelioma of the intermediate or mixed type one would ordinarily find certain areas sharply limited by a dense growth of lattice fibers more or less regular in outline. In other areas in which there is a greater tendency toward malignancy, the attempt to limit the growth is less marked. Instead of showing a sharp line of demarcation between the cancerous growth and the bordering lattice fibers, many of the fibers appear to penetrate between the cells of the cancerous growth.

In nevo-epitheliomas I found, distributed among the malignant cells, a well marked network of the so-called lattice fibers, which formed part

Fig. 3.—Slightly malignant type of squamous cell epithelioma. *A*. Epidermis. *B*. Dense lattice fiber network at border of cancerous growth, having an appearance similar to that seen in the benign type of tumor. *C*. Lattice fibers among the cancer cells indicate the malignant character of the growth. × 80.

of the stroma (fig. 4). The appearance and density of this network, which varies greatly in different malignant nevi, is influenced by the type of cell or cells of which the growth is composed. Dawson,[11] in speaking of the origin of the malignant melanomas, says that the tumor cells arise from two sources: (1) from a proliferation of the original nevus cells embedded in the corium and (2) from the cells of the surface epithelium and its interpapillary epithelial processes by a

11. Dawson, J. W.: The Melanomata, Their Morphology and Histogenesis, Edinburgh M. J. **32**:705 (Oct.) 1925.

series of transformations analogous to those traced in the genesis of a simple nevus. Lattice fibers are especially abundant when the cells of which the nevo-epithelioma is composed have arisen largely from the epithelium and have, through a series of changes, become like spindle-shaped connective tissue cells. There is only a slight attempt on the part of the lattice fibers to limit the growth, so that at the periphery of the proliferating and advancing nevus and epithelial cells only a few scattered fibers are seen, and it is because of this lack of a limiting process that metastasis occurs so early.

It must be remembered, however, that examination of a nevus to determine whether the tissue is simple or malignant as in other tumors,

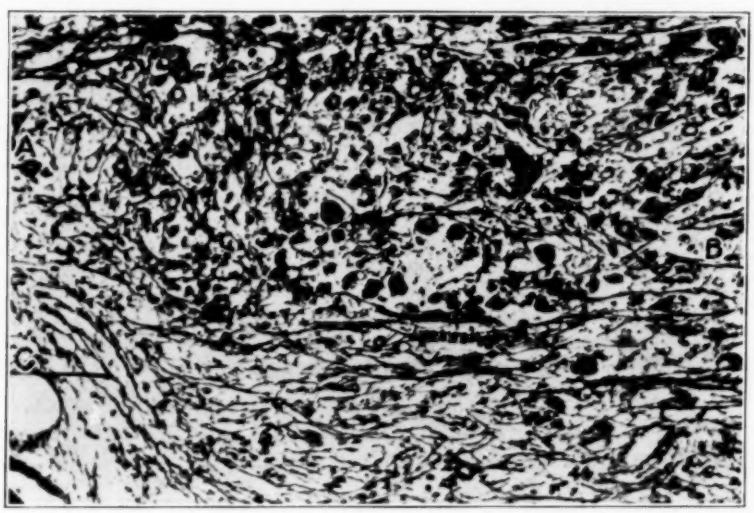

Fig. 4.—Extremely malignant type of nevo-epithelioma of the pigmented variety. *A*. Cell containing pigment. *B*. Lattice fiber stroma. *C*. Scanty lattice fiber network which lacks ability to limit the growth of cancer cells. The presence of the lattice fibers throughout the entire growth is in contrast to their absence in a benign nevus. × 150.

may show that in one section evidence of malignancy is absent, while in another it is apparent. Therefore when the first sections from a growth prove negative, further sections, taken at different depths, should be examined before an opinion is given. For instance, figure 5 is a fairly typical picture of a benign nevus with a dense connective tissue stroma, but another section of this biopsy material showed marked malignant changes.

A similar gradation from the simple picture, represented by the benign nevus, to the extreme of malignancy, seen in an advanced nevo-epithelioma, can be traced, and here the absence or presence of lattice

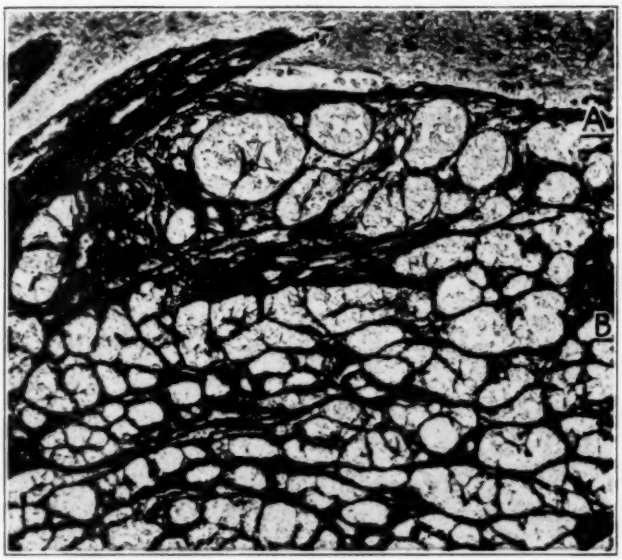

Fig. 5.—Benign area of a nevo-epithelioma. *A*. nevus cells. *B*. Well marked connective tissue stroma. Lattice fibers were entirely absent in this part of the section, but were abundant in that part which showed malignancy. × 100.

Fig. 6.—Benign cellular nevus. *A*. Note absence of lattice fibers among the nevus cells and other parts of the corium. × 80.

fibers, their density and their relation to the general architecture of the tissue are of great diagnostic value. Microscopic examination failed to show lattice fibers in the various types of benign nevi, both pigmented and nonpigmented, and as a large number were examined, it can be justifiably concluded that lattice fibers are always absent in benign nevi. On the other hand, nevo-epitheliomas, even in their earliest stages of development, show some evidence of lattice fibers. It is admitted that these fibers are present in inflammatory changes, a slight degree of which usually accompanies the transition to malignancy, but here their significance can be readily appreciated, and this admission in no way impairs the diagnostic value of lattice fibers in malignancy. A comparison of figures 4 and 5 shows the lattice fiber content in a nevo-epithelioma, and its less orderly arrangement in contrast with the architecture of the stroma in a benign nevus.

CONCLUSIONS

This paper has been written in the hope of presenting a new means of determining (1) the transition from a simple type of growth to one in which malignancy is becoming evident, and (2) the comparative degree of malignancy shown.

The criteria on which stress has been laid are those related to the lattice fibers—their spatial distribution and amount. These have been elucidated by a staining method (Maresch-Bielschowsky) which combines great clearness with specificity in its results.

An epithelioma may be said to be benign when it is entirely surrounded by a dense, thick network of lattice fibers, provided that the cancer cells do not penetrate into the surrounding fibers and there is a definite line of demarcation between the two.

An epithelioma of the ordinary type may be said to be malignant when the lattice fibers surrounding the cancerous growth are few or practically absent, and when, instead of showing a sharp line of demarcation between the two, the cancer cells penetrate into the bordering lattice fibers.

When an epithelioma originating from a nevus has a stroma composed largely of lattice fibers, and when few similar fibers occur at the periphery of the growth, it should be regarded as highly malignant. The more densely surrounded by lattice fibers a malignant growth is, the less is the tendency toward metastasis.

Lattice fibers are always absent in a benign, noninflammatory pigmented or nonpigmented nevus.

In accordance with the views of Homma,[3] lattice fibers are chiefly protective in function, but it is also evident that they may play a constructive rôle.

EXTENSIVE SARCOMA OF SKIN TREATED BY UNFILTERED ROENTGEN RAY

LLOYD F. CRAVER, M.D.
Attending Physician, Memorial Hospital
NEW YORK

This case is reported because of several extraordinary features. The skin of a large part of one lower extremity was occupied by multiple bleeding and necrotic tumors, so that the patient was rendered an invalid by loss of blood and toxemia, and was almost an outcast by reason of the foul stench arising from his sores. The case might well have been rejected at many clinics as hopeless; certainly, surgical procedures or medication could have accomplished little or nothing, and it was impossible to admit the patient to any ward service because of the odor.

Roentgen-ray treatment, however, cleared up the local condition completely. The technic of the unfiltered roentgen-ray treatment differed from that ordinarily used, in that the target-skin distance was greatly increased. This change in technic made possible a longer exposure, which covered a greater area at one treatment, and furnished a somewhat greater depth dose, despite the lack of filtration.

This tumor process was peculiar, in that some of the microscopic and clinical features suggested the possibility of a neurogenic origin.

The spontaneous disappearance of a few small, perhaps questionable, tumors in other parts of the body during the course of the treatment is a further point of interest. It is inconceivable, however, that the disappearance of the main area of the tumor tissue, following the roentgen radiation, could have been due to any other factor.

The subsequent course of the case was complicated by infection in the tumor-bearing area. Soon after the tumors had regressed, the patient had pain about the knee for a short time, accompanied by chills and fever. Other conditions were not found at that time, except some evidence of chronic osteitis. Ten months later an infection developed rapidly in the same knee, which required drainage, and rendered the patient critically ill. There was persistent drainage, with occasional attacks of fever, for six months. The patient has now been well of the infection for more than six months, and, with the exception of an ankylosed knee is in better health than he has been for years.

Not at any time since the disappearance of the tumors twenty-two months ago has there been any recurrence.

REPORT OF CASE

History.—S. S., a colored man, aged 53, a valet, referred to Memorial Hospital by Dr. R. M. Fowler of Atlantic City, N. J., and admitted on Aug. 12, 1924, had had typhoid fever as a boy, and pneumonia in 1916. His mother died of heart trouble, and four brothers died in infancy. Syphilis was denied. Otherwise the past history was negative.

Present Illness.—About May, 1924, after lifting a heavy weight, the patient noticed a pain down the front of the left thigh, followed by some swelling of the entire thigh. Shortly afterward he noticed a lump on the outer aspect of the lower part of the left thigh. This was followed by the appearance of numerous other lumps, many of which became elevated; and in the popliteal space the lumps grew together to form one large raised swelling, which became ulcerated and began to bleed in June, 1924, and by the time of admission was extensively necrotic on the surface. The swelling of the thigh and leg persisted. About two weeks before he came to the hospital two small subcutaneous nodules appeared on the inner aspect of the opposite (right) thigh.

Dr. Fowler's letter of introduction stated that the scrotum had been edematous, but that condition had subsided by August 7, five days before the patient reported at the hospital.

Physical Examination.—The patient, in a wheel-chair, was apparently a full-blooded negro of middle age, in fair general condition, but evidently suffering from some pain. The most noticeable feature was an extremely foul odor, which had spread within a few minutes throughout the halls of the hospital.

The left thigh, especially about the knee, was the seat of a congeries of raised skin nodules, some of which were pedunculated. Many of them were ulcerated on their summits, and bled freely from small points when the dressing was removed. There was a steady dripping of blood at the rate of about one drop a second, from several such small areas. Posteriorly, about the popliteal space, the tumors were larger, fungating and necrotic. All about the knee the tumors were larger and confluent, but on the thigh above the knee there were many discrete nodules. The individual nodules varied from 0.5 to 3 cm. in diameter. Their consistence varied from very soft to firm. The entire left thigh and leg were edematous. In the left groin there was a diffuse swelling, possibly an inflammatory enlargement of lymph nodes.

On the inner aspect of the opposite (right) thigh just above the knee there were two subcutaneous nodules 0.5 cm. in diameter. Below and lateral to the left breast was a small group of firm subcutaneous nodules, six or seven in all, each from 0.3 to 0.5 cm. in diameter.

Figure 1 shows the left thigh as it appeared before treatment.

Diagnosis.—A provisional diagnosis was made of multiple hemorrhagic sarcoma of the skin. Although it was recognized that the clinical appearance did not correspond to the usual picture of Kaposi's [1] multiple hemorrhagic sarcoma, nevertheless, the fact that the disease had first appeared on the lower extremity and had developed chiefly there, the marked vascularity and hemorrhagic features, and its multiplicity led to venturing the suggestion that the condition might be Kaposi's multiple hemorrhagic sarcoma.

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1. Kaposi: Idiopathisches multiples Pigmentsarkom der Haut, Arch. f. Dermat. u. Syph., 1872, p. 265.

One of the most accessible nodules was snipped off and submitted to Dr. James Ewing.[2] His report was as follows:

"Hemorrhagic large spindle-cell sarcoma. The cells are quite large and spindle in form, larger than the usual cells of neurosarcoma. The nuclei are quite hyperchromatic. Small vacuoles are found in some cells. The cytoplasm is rather acidophile. The cells are arranged mostly in intertwining bundles as in neurosarcoma, but the bundles are larger than is usual in neurosarcoma. There is some tendency to mucous degeneration. In many places the cells line numerous small and large blood sinuses, and the peripheral portions of the tumor are infiltrated with blood, while recent blood-clot lies between epidermis and

Fig. 1.—Medial aspect of left thigh Aug. 12, 1924, before treatment with the roentgen ray. The confluence of nodules to form a large mass at the popliteal region should be noted.

tumor. It is impossible to trace the origin of the tumor cells from any adventitious cell or blood vessels. On account of the spindle form of the cells, the intertwining bundles of cells, the multiplicity and bilateral occurrence, it seems most probable that the tumor is a neurosarcoma. The structure is not typical of Kaposi's hemorrhagic sarcoma."

The photomicrograph (fig. 2) shows a field of this section.

Treatment.—Because of the objectionable odor it was impossible to consent to the patient's admission to the hospital. Accordingly, through the social service

2. Ewing, J.: Neoplastic Diseases, ed. 1, Philadelphia, W. B. Saunders Company, 1919, p. 247.

department, arrangements were made with the Henry Street Nursing Visiting Service to have his leg dressed twice daily at his home, a weak solution of potassium permanganate being used for that purpose. Treatment was begun at once with the unfiltered roentgen ray.

In order to obtain a deeper effect than usual with unfiltered radiation, and also in order to be able to include a larger area in one treatment, the target was placed at a distance of 15 inches (37.5 cm.). In this way, one large area on the medial, lateral and posterior aspects, respectively, was treated on the first day.

Fig. 2.—Section of nodule removed from skin of left thigh (fig. 1), Aug. 12, 1924, before treatment.

The other factors were: time 3 minutes, milliamperes 5, spark gap 10 inches (25.4 cm.) between blunt points (equivalent to from 135,000 to 140,000 volts). A filter was not used. This dose gives a moderate erythema.

Course.—One week later there appeared to be some beginning regression of the tumors, but only within the fields which had been directly exposed to the roentgen ray. At the end of two weeks definite regression had occurred. Many of the nodules had become flattened out. Some had disappeared. There was little bleeding, but still some oozing of serum from the large mass in the popliteal space. The mass was still necrotic. At this time, Aug. 26, 1924, one of the small firm

subcutaneous nodules on the inner aspect of the opposite (right) thigh was excised by Dr. L. R. Cowan.

It was thought that in this way an idea might be gained concerning the origin of the disease, as this group of nodules was believed to represent an early stage in the development of the process. On careful dissection it was obvious that there was a definite connection of the nodule with a subcutaneous nerve. The nodule was firm, white and about the size of a small split pea, and it clung to the side of the nerve nearest the skin. The observation led to a search for stigmas of neurofibromatosis, but none was found, save a marked dorsal scoliosis. None of the characteristic patches of pigmentation was found.

Unfortunately I failed to have the pathologic laboratory demonstrate whether the structure to which the nodule clung was actually a nerve trunk. However, when it was dissected out, it had every appearance in the gross of being a nerve and not a blood vessel.

The patient still suffered from so much pain and consequent sleeplessness that he required moderate doses of codeine and acetylsalicylic acid.

Three weeks after the patient's first appearance and treatment slight further improvement was noted. Two more large areas on the left thigh were exposed at this time to the same dose of roentgen rays, and a second treatment was given to the large fungating tumor in the popliteal space. As he was about to leave the clinic a severe hemorrhage from this tumor began, and made it necessary to admit him to the ward. The hemorrhage was readily controlled by tight bandaging. He remained in the hospital twenty-seven days, having potassium permanganate dressings on the ulcerated lesions, but no other treatment. Then he left because of a misunderstanding, and remained away one month.

When he returned on Oct. 31, 1924, he had not had any other treatment in the meantime, but a remarkable regression had taken place in the areas that had been treated with the roentgen ray. Some isolated masses, however, had grown. Two more roentgen-ray treatments were given about the knee, with the same dose as before, and one treatment was given to an area on the upper part of the thigh.

Three weeks later, November 20, while regression was definite in the areas last treated, other areas had produced large fungating tumors (fig. 3), and this time four different areas received an exposure to the dose used before.

On December 12, four more areas were similarily treated.

By December 23, there was little odor, and while regression in the regions last treated was satisfactory, new tumors were still cropping up in the areas between.

On Jan. 5, 1925, the popliteal mass was found to be healed over on the surface, but still thick. At that time a single exposure to the filtered roentgen ray was administered to this tumor, using 4 mm. of aluminum filter, at a distance of 12 inches (30.5 cm.); the time of exposure was fifteen minutes; voltage and milliamperage were the same as in the unfiltered treatment. Three other areas received the usual dose of three minutes of unfiltered exposure.

Again, on January 23, one unfiltered treatment was given to the back of the left leg.

On March 9, seven months after the patient's first appearance, marked regression was observed in all the tumors. None was ulcerated. However, the patient had been having pain about the knee for a month. He appeared somewhat emaciated. Some tenderness was present about the knee, especially about the upper anterior edge of the tibia, and there was evidence of some fluid in the knee joint. He had been having chills, with cold extremities, and a fever of 100 F., for which definite cause was not found. A roentgenogram of the leg

Fig. 3.—Medial aspect of right thigh on Dec. 15, 1924, four months after the first roentgen-ray treatment. Four series of unfiltered treatments had been administered all about the thigh and the knee. The disappearance or shrinkage of many of the nodules, in comparison with figure 1, the new formations in larger fungating masses and the dry condition of the skin between the tumors should be noted.

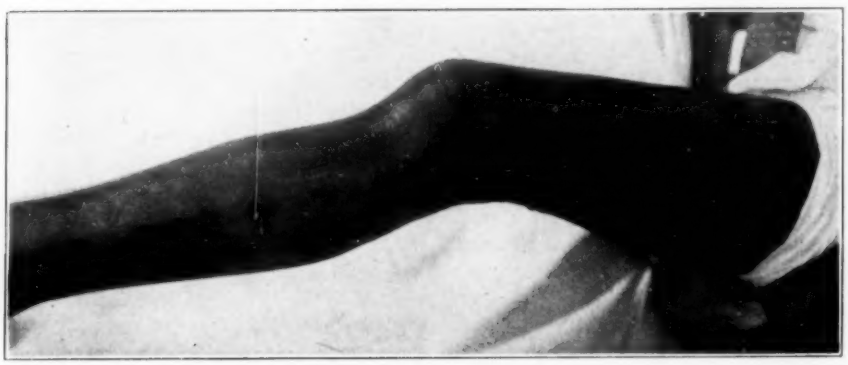


Fig. 4.—Lateral aspect of left thigh on Dec. 22, 1925. The medial aspect, as well, did not show any sign of recurrence.

showed only some thickening of the cortex of the tibia, believed to be due to a chronic osteitis. The Wassermann reaction was negative.

The following week his condition was much better. There was a contracture at the knee, caused, apparently, by the scar in the popliteal space, resulting from the complete healing of the large tumor which had been there. The knee was flexed to an angle of about 45 degrees. As bed space could not be spared in the hospital long enough to permit proper treatment of this deformity, arrangements were made with an orthopedist, Dr. Irvin Balensweig, to apply an extension device at the patient's home. The patient wore a plaster cast for two months, until May 16. By this time good extension had been obtained. Signs of recurrence of the skin tumors were not present. The skin of the leg had become dry and was fissured slightly in many places, with slight weeping of

Fig. 5.—Medial aspect of left lower extremity on Nov. 29, 1926, representing condition when last seen on Jan. 20, 1927, twenty-two months after the disappearance of all tumors. Comparison should be made with figures 1 and 3.

serum. A few treatments of ultraviolet light aided in clearing up this condition. The cast was reapplied.

On June 4, the leg was in almost full extension, but flexion was limited to about 30 degrees. Baking and cautious massage supervised by Dr. Balensweig greatly improved the function of the knee, and the cast was discarded.

There was not any further trouble until six months later. On Jan. 24, 1926, the patient was found to have an acute infection about the knee joint, with leukocytosis of 36,800 and 90 per cent polymorphonuclear cells. The temperature was 99 F., the pulse rate 100 and respirations 20. Three days later the knee joint was incised and drained by Dr. Frank Adair. A considerable amount of pus was obtained. A smear of the pus showed numerous long-chain streptococci. Definite evidence of involvement of the knee joint by tumor was not present.

Following the operation there was a protracted course with persistent irregular fever, accompanied by the continued drainage of pus. For a time the patient seemed moribund. Exposed rough bone could be felt in the depth of the wound.

Because of the sloughing of ligaments and cartilage, a deformity resulted, so that when the wound eventually did heal the knee was left ankylosed in some flexion.

Coincident with this severe infection the patient suffered greatly from large bleeding hemorrhoids, which were so thickened from inflammation that they were suspected of being possibly part of the tumor process. A biopsy, however, showed only chronic hypertrophic and acute purulent proctitis. At the same time an indolent ulceration of the scrotum appeared, which required about six weeks to heal. The patient slowly recovered, so that on March 31, after a stay of more than two months in the ward, he was able to go home. In May there was another, but smaller, localization of pus at the knee, which required incision. For the past seven months, however, the knee has remained free from evidence of infection. The skin of both legs below the knees developed a marked chronic eczematous condition, with fissuring and oozing of serum about the ankles and considerable crust formation just below the knees. This has been well taken care of by a few short exposures to unfiltered roentgen rays, and a stimulating ointment prescribed by Dr. George C. Andrews.

Not at any time during the last twenty-two months has there been evidence of a return of the sarcoma of the skin. The weight of the patient is now (Jan. 20, 1927) greater than it has ever been. He is in excellent general condition, not suffering any disability aside from the ankylosis of the knee.[3]

COMMENT

From the clinical point of view the nature of this tumor process seems doubtful. The appearance of infection about the knee joint so promptly following the regression of the tumors might raise the question whether there had not been an antecedent latent infection which had given rise in some way to a process resembling a true tumor. However, the microscopic studies would seem to prove definitely that the disease was a true tumor, a multiple hemorrhagic spindle cell sarcoma. Moreover, the wide extent of ulceration of the tumors and their proximity to the knee joint afforded ample opportunity for the entrance of infection as a secondary process. Yet, on the other hand, the spontaneous disappearance of some small subcutaneous nodules on the opposite thigh and on the chest wall, if they were true tumors, as one of them appeared to be microscopically, is unusual, and might tend to support a contention that the whole process was of infectious origin.

At any rate, it is safe to assert that the disease threatened the life of the patient by hemorrhage and sepsis, if not by true metastases; that it was microscopically a spindle cell sarcoma, with some resemblance to neurosarcoma; that it showed a strong tendency to recur rapidly following regression under the roentgen ray, and that it was finally completely controlled and made to disappear by the roentgen ray.

Attention should be directed again to the technic of treatment, to which, it is felt, the successful result is largely to be ascribed. That is, the

3. The latest report from the patient dated May 13, 1927, states that there is not any evidence of tumor. This brings the duration of freedom from recurrence up to twenty-six months.

employment of the unfiltered roentgen ray to the extent of an erythema dose at each exposure gave the maximum desirable "soft ray" effect on the surface, where it was needed to take care of the ulceration and bleeding. At the same time, placing the target at a distance of 15 inches (38 cm.) made it possible to include one side of practically the whole tumor-bearing area in one field. Moreover, the increase of the target-skin distance, together with the use of a peak voltage of 135,000, assured a more favorable ratio of depth dosage to surface dosage than is possible with the factors commonly employed in unfiltered roentgen-ray therapy, and undoubtedly contributed to the good result.

1078 Madison Avenue.

DERMATITIS PRODUCED BY BALSAM OF PERU*

CLYDE L. CUMMER, M.D.
CLEVELAND

The not infrequent use of balsam of Peru, both for its stimulating property and as a component of ointment for the treatment of scabies, and the general opinion that it is nonirritant, would seem to make the following case history worthy of record.

REPORT OF CASE

M. K., aged 40, a steel worker, was seen in the wards of St. Alexis Hospital, Cleveland, on May 1, 1926, through the courtesy of Dr. George E. Follansbee. He had been burned on the right arm, the neck and the chest in a steel mill on March 22, 1926. The burns were described as of the first degree. The burned surfaces had been dressed with an ointment which is used as a routine treatment in the plant in which he was employed and its use was continued in the hospital. The burned surfaces did not heal properly but remained inflamed. One of the ingredients of the ointment was suspected of being an irritant, and skin tests were made at the hospital by applying ointments containing, respectively, phenol and balsam of Peru. At this time, both apparently produced irritation, which was more marked with balsam of Peru.

When first seen by me, the skin under both axillae was erythematous and thickened, and skin markings were intensified. The areas were fairly sharply marginated. They were crusted with dried serum, and in many places the crusts covered thin yellow purulent material. A similar lesion was seen on the upper part of the right side of the thorax and a smaller patch at the flexure of the right elbow, where the skin was much thickened. Smaller patches were seen on the left thigh and on the trunk, especially around the umbilicus. The large lesion on the right side of the thorax showed an especially marked amount of purulent material.

The picture was that of infectious eczematoid dermatitis. Wet compresses of potassium permanganate were used and the patient discharged from the hospital greatly improved on May 16. When seen on June 24, the skin in the right axilla and around the umbilicus was still thickened, erythematous and edematous. There was yellow exudation at the umbilicus, and a slight excoriated papulovesicular eruption on the extensor surface of the left upper and forearm. The skin cleared rapidly after roentgen-ray irradiation (one third of an erythema exposure).

At this time tests were made on normal skin of the abdomen to settle definitely the question as to the irritating ingredient of the ointment. The ointment used in the plant had been made in large lots, according to the following formula:

Boric acid (in impalpable powder)	8 parts
Phenol	2 parts
Balsam of Peru	6 parts
Paraffin	12 parts
Petrolatum, q. s.	100 parts

* From the wards of the St. Alexis Hospital.

Accordingly, ointments were made as follows for test purposes:

(a) Paraffin ..... 12 parts
Petrolatum, q. s.....100 parts
(b) Boric acid ..... 8 parts
Paraffin ..... 12 parts
Petrolatum, q. s.....100 parts
(c) Phenol ..... 2 parts
Paraffin ..... 12 parts
Petrolatum, q. s.....100 parts
(d) Balsam of Peru..... 6 parts
Paraffin ..... 12 parts
Petrolatum, q. s.....100 parts

A small amount of each ointment was applied and covered with a gauze square fastened with adhesive, the areas of application being widely separated.

Fig. 1.—Eczematoid dermatitis produced by balsam of Peru; taken May 1, 1926.

When the patient returned the next morning, all dressings were in place except the one which covered the ointment containing balsam of Peru. The burning had been so intense that the patient had removed the gauze twelve hours after application. Here was marked erythema with vesiculation, the inflamed area occupying a zone much larger than that covered by the ointment. The other ointments did not produce any visible effect.

There was no reasonable doubt that balsam of Peru was a violent irritant for this patient. The company surgeons stated that it had been used for many years as a routine dressing in burn cases, of which there were many in the plant, and that in only one other instance had trouble been experienced. Evidence of the extent of its use is given by the quantity in which it was prepared.

Balsam of Peru is used to some extent in this country, especially as an ingredient of antiscabetic ointments, often in combination with sulphur and occasionally with beta-naphthol. On the continent, it has been used to considerable extent alone. Sutton [1] leads one to believe that the method of painting the patient with balsam of Peru without any preliminary bath or other preparation originated in the Italian clinics. It was taken up by the French.

Fig. 2.—Eczematoid dermatitis produced by balsam of Peru; taken May 1, 1926.

In France, the use of the balsam became the subject of a vigorous controversy in 1899. Jullien [2] had advocated its employment in the treatment of scabies. Hallopeau [3] and his associates called attention to the occasional toxic effects. The possibility of this was denied by Jullien. The discussion may be presented briefly as follows: Hallopeau and

1. Sutton: Diseases of the Skin, St. Louis, C. V. Mosby Company, 1916, p. 798.

2. Julien, L.: Ann. de derm. et syph. **19**:345, 1899.

3. Hallopeau: Bull. Soc. franç. de dermat. et syph. **12**:251, 1901.

Léré [4] cited the report by Daniel Bernouilli [5] of an infant of 6 months who was suffering with scabies and who was treated by rubbing with the usual amount of balsam of Peru. Four hours later, there was sudden collapse, with death the same day. Autopsy showed hemorrhages of the bronchi, kidneys, intestines and meninges. Lohaus [6] described the case of an infant of 6 days, much agitated, crying and covered with perspiration. Diarrhea with green and yellow stools was present. Before death there were clonic convulsions. It was found that the child was breast fed, and that an ointment containing balsam of Peru had been applied to the mother's nipples.

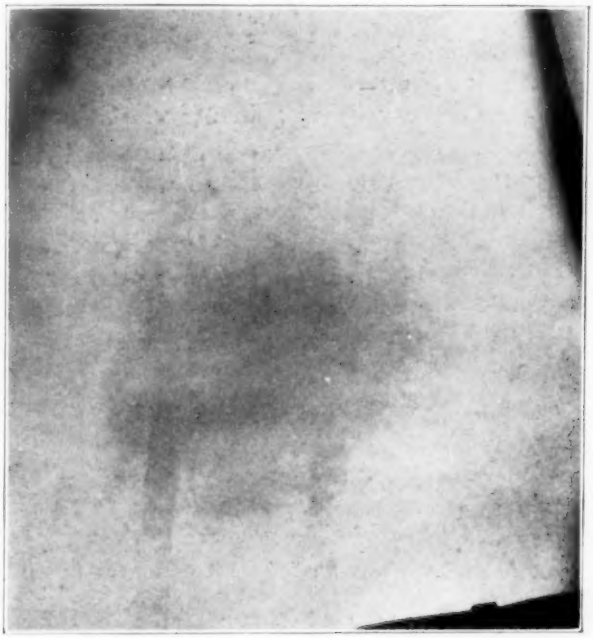


Fig. 3.—Reaction produced by trial application to the normal skin of an ointment containing balsam of Peru; taken June 29, 1926.

Hallopeau then reported a case of aggravated scabies observed by him in a child, aged 4 years. He was treated by rubbing with an ointment containing 2 per cent balsam of Peru and by compresses of boric acid to the excoriated parts. On the fifteenth day, the condition was considerably improved and the patient was about to be discharged, when itching was again noted. Painting with balsam of Peru, diluted with 4 parts of oil of sweet almonds, was ordered. On the same day,

4. Hallopeau and Léré: Ann. de dermat. et syph. **19**:232, 1899.

5. Bernouilli: Cor-Blatt. f. schweiz. Aerzte, September, 1883; quoted by Hallopeau and Léré (footnote 4).

6. Lohaus: Berl. klin. Wchnschr. **29**:130, 1892.

numerous vesicles filled with purulent material appeared, some of which were as large as a franc. They opened later and became crusted. There was some febrile reaction.

Hallopeau asserted that balsam of Peru was capable of causing death by absorption of the drug and should not be employed on a large scale in the presence of excoriations; that in a case of scabies with excoriations, the balsam should be mixed with a neutral excipient, such as oil of sweet almonds, and applied only to restricted surfaces, and that the drug was not tolerated in predisposed subjects, as it tended to produce a subacute pustular dermatitis. Reaction is produced, he stated, only at the points where irritation permits absorption of the drug.

L. Jullien questioned the report of the toxic actions of balsam of Peru. He reviewed its long standing reputation as a beneficient substance. Sydenham administered large doses internally. Jullien tried animal experimentation, employing guinea-pigs. General friction did not cause difficulty. Balsam of Peru was given internally to two animals with a resultant gain in weight. One animal lost weight, but Jullien attributed this to the alcohol in which the balsam of Peru was administered. One animal died, and necropsy revealed a red, distended stomach. Subcutaneous injection was made in the sixth animal. The animal died, and the skin showed irritation at the point of injection and the viscera general congestion. This proved, he thought, that balsam of Peru was toxic only in large doses. He reiterated that the drug was harmless under the conditions and in the proportions usually employed in the treatment of scabies.

Hallopeau and Bacarese [7] replied by reporting two more cases, in a father and son admitted at the same time for the treatment of scabies, both presenting a dermatitis of the extremities. They were treated with balsam of Peru diluted with 3 parts of oil of sweet almonds. On the fourth day of treatment, the dorsa of the hands were red and tumefied, the fingers were bent, and pustules appeared. They concluded that balsam of Peru should not be employed in a case of scabies complicated with intense dermatitis.

In 1901, Hallopeau reported the case of a man, aged 22, who had been suffering with scabies for about fifteen days. The cutaneous lesions were of moderate severity and on the abdomen there were patches of eczematous dermatitis. He received classic treatment at a rubbing establishment, the ordinary sulphur ointment being replaced by balsam of Peru. The patient immediately suffered intense pain, especially over the abdomen, which persisted until the ointment was removed eighteen hours after its application. On the following day, four ulcerated areas from 4 to 7 cm. in diameter were noted on the abdomen above the groins. They were covered with serous detritus. The suffering continued to be acute, but was relieved with a mild lotion, and ceased only

7. Hallopeau and Bacarese: Ann. de dermat. et syph. **19**:1060, 1899.

after several days. The ulcers were covered with granulation tissue. The patient was able to leave his bed at the end of a month and resumed active life little by little.

Hallopeau held that because of these accidents the use of balsam of Peru was dangerous in cases showing irritation of the skin. In discussion, Jullien stated that the method of administration was at fault and that he was willing to enter into a debate on the indications for and contraindications to the method of treatment, provided the cases were regularly followed and well observed.

In the ensuing discussion, Fournier stated that Jullien's method of using balsam of Peru had been employed freely in his service without accidents, that he questioned whether the composition of the balsam was always the same and that they felt that it had been adulterated. Lafay was of the opinion that samples of the balsam as dispensed were far from identical in composition, and called attention to variations of price as evidence of variation in composition.

In the English and American literature, there is scant mention of the possibility of toxic effects. The standard texts give little on the subject. Pusey [8] simply states that balsam of Peru occasionally produces violent dermatitis. Hazen [9] mentions the fact that balsam of Peru is likely to cause an erythema, sometimes even vesication, and that it should not be used unless absolutely necessary in the treatment of scabies, because of its irritating effect on many skins, and because it often causes albuminuria, "thus showing that kidney irritation is produced." (In the case reported here, the urine did not show anything abnormal.)

Macleod [10] refers to possible absorption of the drug and resultant symptoms of intoxication, but does not make reference to local effects. Schamberg [11] mentions balsam of Peru among other remedies used in the treatment of scabies, and states that all of them can irritate the skin if used too strong, or for too long a period.

I was not able to find in the other American texts anything regarding irritating effects.

Hazen stated that of late years a number of cases have been reported in which balsam of Peru applied locally caused a nephritis, and that it frequently sets up a dermatitis at the place of application.

Hazen's patient had gonorrhea and severe epididymitis. While under treatment, he had noticed an itching between the fingers, which

8. Pusey: Principles and Practice of Dermatology, ed. 4, New York, D. Appleton & Co., 1924, p. 854.

9. Hazen, H. H.: Diseases of the Skin, St. Louis, C. V. Mosby Company, 1915, p. 108.

10. Macleod: Diseases of the Skin, New York, Paul B. Hoeber, 1921, p. 121.

11. Schamberg: Diseases of the Skin, ed. 4, Philadelphia, W. B. Saunders Company, 1921, p. 210.

spread to the wrists and forearms; it also appeared on the abdomen, and there were one or two papules on the penis. Originally the lesions were papules or vesicles which itched intensely, especially at night.

Scabies was diagnosed by the attending physician, and either sulphur or balsam of Peru was recommended. The patient himself made a mixture of balsam of Peru and lard, which he used freely. After the ointment had been used for one week, there appeared on the face and all over the body a blotchy ill-defined eruption that itched intensely when he perspired. The patient had not taken any drug internally for the gonorrhea, which was almost cured. He was seen by Hazen two weeks after the secondary eruption had appeared. In the interval, he thought that the scabies lesions were spreading and applied the ointment vigorously, and his condition rapidly became worse. He did not have any trace of the scabies, but was almost completely covered by a mascular, ill-defined measly eruption that was faint pink or purplish. The macules, roughly oval in shape, were about 1 cm. in diameter. Over the extensor surfaces of the knees, the skin was thickened and markedly purplish. The rash resembled that caused by the internal use of copaiba, except that it was paler. To some extent it resembled macular syphilis, but other signs of the disease were not observed. The diagnosis of erythema from balsam of Peru was made. One week after discontinuing the local use of the drug and employing a mild lotion, the patient was well.

Hazen also cites a reference from Lewin,[12] who states that unlike other balsamic agents, balsam of Peru has been found but rarely to produce incidental effects. He quotes a report by Mögling,[13] however. Eight grams of the balsam, applied to the shoulders and chest for scabies, caused urticaria and bronchitis. With the exception of this instance, Hazen was unable to find anything in the literature that corresponded to his own case.

CONCLUSIONS

There does not appear to be any reasonable doubt of the occasional irritating and toxic effect of balsam of Peru. Since the condition occurs but rarely, even when the drug is employed as a routine treatment, it is probably a question of idiosyncrasy. The reports indicate that when an unfavorable local effect is noted, it usually takes the form of an eczematoid dermatitis, severe enough in some instances to result in ulceration, though in one patient a morbilliform erythema was seen. Absorption may take place after local application, and this may be followed by severe toxic signs, fever, enteritis and nephritis. Occasional fatalities from absorption have been reported.

12. Lewin: The Incidental Effect of Drugs, New York, William Wood & Co., 1882, p. 208.

13. Mögling: Berl. Klin. Wchnschr. **17**:557, 1880.

SCABIES

A SMALL INSTITUTIONAL EPIDEMIC WITH INTERESTING AND UNUSUAL FEATURES

PAUL E. BECHET, M.D.

NEW YORK

In an extensive dispensary practice, scabies is so commonly observed that it is passed over lightly; the diagnosis is made at a glance, in a nonchalant manner, and the patient is given an order for sulphur ointment with the usual printed directions. The old adage, "Familiarity breeds contempt," can never be more fittingly applied than to the manner in which patients with this disease are usually treated. Apparently, physicians are too sure of their immunity to it and of the absolute correctness of their diagnosis. Observation of a small epidemic in a hospital of which I am a consultant proved to me that scabies can be atypical and almost as quickly contracted as an exanthem.

Some time ago I was called to a maternity ward to see five babies, varying in age from 5 to 10 days, who had contracted an eruption almost simultaneously. They were completely stripped and, on examination, showed a few discrete papulopustular lesions which were scattered over the trunk, and which seemed to be most numerous in nonscabetic locations. The feet and toes were entirely free from lesions, as were the hands, and there was not a single furrow. The papules and pustules had an erythematous areola. However, they lacked the irregular croplike appearance with the umbilication of individual lesions of varicella, but strongly resembled impetigo, and that was the only plausible diagnosis. The visiting obstetrician said that the nurse in charge of the infants had had an eruption for several days without any one's knowledge, and that he had discovered it when the eruption appeared on the babies. On inspection, the nurse was found to have a severe case of typical scabies, and was quarantined immediately. Another nurse who had undressed the babies for me contracted the disease from them after a few days. The condition was undoubtedly scabies, and the second nurse had not been in contact with the nurse first affected. Within a week, I was called on to treat eight more nurses and one intern for scabies, each apparently contracting it within a few days of the others, so that in ten days a total of sixteen persons were affected.

The disease was quickly checked by confining the scabetic patients to a private wing of the hospital without any communication with unaffected persons. All bed linen, gowns and similar materials were sterilized separately. The use of sulphur and, for the babies, weak

balsam of Peru ointment, brought about a quick recovery. The hospital attendants were not allowed to return to their respective duties until completely well.

COMMENT

This little experience conveys to the mind two facts: at times, scabies can so diverge from the usual type as to be practically unrecognizable; yet at the same time it may be extraordinarily contagious. The latter fact remains somewhat dormant in the dermatologic mind because of apparent personal immunity. For years I have handled scabetic patients at the rate of from two to five a clinic day, using afterward only a little running water on the finger tips. In view of this experience I will be more careful in the future.

30 East Fortieth Street.

Correspondence

TROPICAL SKIN DISEASES IN THE WEST INDIES

To the Editor:—During the month of March, I had the opportunity to take a cruise in the West Indies and to visit twelve ports in the tropics. Although my trip was taken primarily for recreation, I made some inquiries about a few diseases which may be of interest to my dermatologic colleagues.

On a cruise of this kind it would have been possible to see approximately 1,000 lepers, by making a special effort and by sacrificing some of the usual sight-seeing. The large number of patients (258) were in the leprosarium in La Guayra, the port of Caracas, Venezuela. Other special hospitals for lepers with their respective numbers of patients were as follows: Rincon, Cuba (near Havana), 189; Spanish Town, Jamaica, 120; Panama, 75; Trinidad (on an island about 15 miles from Port of Spain), 150; Barbados (near Bridgetown), 156, and Porto Rico, 50, making a total of 998. The figures for several of the hospitals were estimated by persons who were in close touch with the situation. The tourist who did not wish to miss the important natural sights or to make a special effort could have seen about 700 cases of leprosy, namely, those at Cuba, Jamaica, Panama, Trinidad and Barbados.

It was surprising to find that there were comparatively few lepers in Haiti, a republic composed solely of negroes. The statements of the United States Naval officers to this effect were borne out by the fact that there is no special hospital for lepers in the republic. In a recent conversation, Dr. Herbert C. Clark, of the United Fruit Company, informed me that in physical examinations of over 9,000 applicants for work as laborers in Haiti, not a single case of leprosy was discovered.

For the American physician who wishes to study yaws, the ideal place at the present time undoubtedly is Haiti. This was the opinion of Dr. Lambert, director of the School of Tropical Medicine in San Juan, Porto Rico, who said, incidentally, that yaws is no longer common in Porto Rico. In his annual report, the sanitary engineer at Haiti, Captain Butler, ranking medical officer of the United States Navy in Haiti, classes yaws and syphilis together as "Trepanematosis." He states that this is the "big problem" and that "its morbid manifestations are tremendous." In his opinion, yaws and syphilis are the same disease, a view that is not shared by the majority of authorities on the subject. There appears to be no doubt that syphilis is prevalent in the larger towns of Haiti, as elsewhere. In the clinic at Port au Prince, for instance, I saw a perfect example of the annular (papular) syphilid so common in the negro race. The majority of the people, however, live in rural communities, where yaws, in the opinion of many, is much more common than syphilis. An idea of the prevalence of yaws, as well as of syphilis, is given by a statement in Captain Butler's annual report that 229,481 injections of arsphenamine, neoarsphenamine and bismuth were given for trepanematosis during the fiscal year 1925-1926. In the outpatient department of the Haitian General Hospital at Port au Prince, I saw a long line of patients with yaws, presenting mostly the tertiary type of cutaneous and osseous lesions. One of these patients had walked barefooted over 40 miles to get his injection of arsphenamine, and had been doing so each week for some time. This was

one of the many evidences of the natives' appreciation of the splendid work that is being done by the medical officers of the Navy.

While in Barbados, I was curious to know whether elephantiasis, filarial or otherwise, is common on the island. I was informed by one of the physicians at the General Hospital in Bridgetown that "Barbados leg," chyluria and lymph scrotum are uncommon. In the annual report on Haiti, a mention was made of a survey to determine the incidence of filarial infestation by examining 2,000 patients admitted to the hospital for various diseases. It was found that between 10 and 11 per cent of the patients showed the presence of one of three species of *Filaria*, generally *Filaria bancrofti*.

In Martinique my attention was called to the presence of partially depigmented scaly patches of the face. Just outside the Cathedral at St. Pierre I gathered a large group of negro children and held an informal clinic, to their surprise and amusement. The same condition was present on the faces of many children that I had observed for years at the Harlem Hospital. I had presented such cases before the New York Dermatological Society as partial depigmentation of the face of negro children. These cases were precisely similar to the ones later reported by Pardo Castello and Dominquez under the title of achromia parasitaria, in some of which *Aspergillus* had been obtained by culture.

HOWARD FOX, M.D.

News and Comment

Twenty-Fifth Anniversary of the Odessaer Dermatologische und Venerologische Gesellschaft.—The Odessaer Dermatologische und Venerologische Gesellschaft held a special session on May 15, 1927, in celebration of the twenty-fifth anniversary of its founding.

Obituary

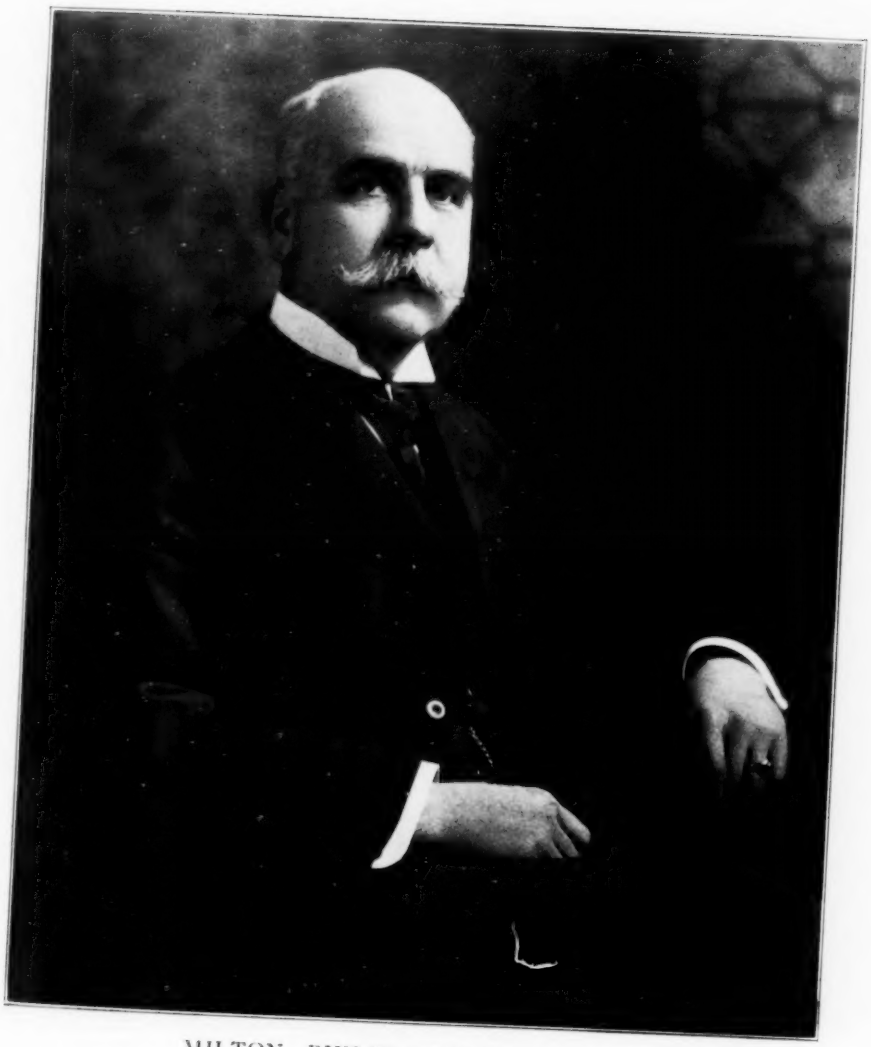
MILTON BIXLER HARTZELL, M.D.

1854-1927

Milton Bixler Hartzell, A.B., A.M. (Gettysburg College), M.D. (Jefferson College), was born at Fayetteville, Pa., in 1854. Both his father and his brother were physicians, the latter being in active practice in Dr. Hartzell's birthplace. He was graduated from Jefferson College in 1877, and never married.

He became a successful general practitioner—the active kind with a forcible personality, which compelled him to see a large number of patients daily and yet to find enough time to act as physician and pathologist to a large metropolitan hospital; this, too, when pathology was but an infant specialty. After the duties of such days, he would spend many hours of the night in the laboratory in his home, cutting sections and experimenting with the aniline dyes which were so new in those days; this has left a permanent impress on Hartzell's work. A review of the field of dermatologic histologic sections as presented at dermatologic society meetings, as well as of photographs in present-day textbooks, shows that Hartzell's laboratory work ranks in the upper levels and constitutes a fine proportion of the superlative work done.

Dr. Hartzell began his dermatologic career in 1884 as assistant in the skin dispensary of the University Hospital. Here he enjoyed the rare mastership of Louis A. Duhring. As it is conceded even today that such a supervision is a sine qua non in the development of the dermatologist, fortunate indeed was he who could boast such a preceptor. In 1891 Dr. Hartzell became instructor in dermatology and assistant in charge of the skin dispensary of the University Hospital. He was given the professorship at the university in 1911, on the retirement of Dr. Duhring. He was, in addition, clinical professor of dermatology, Woman's Medical College of Pennsylvania; Fellow of the American Medical Association, of the Pathological Society of Philadelphia, of the Philadelphia Dermatological Society, of the College of Physicians of Philadelphia and of the American Dermatological Association, of which he was president in 1905-1906, and dermatologist to the Methodist Episcopal Hospital, and to the Philadelphia General Hospital. The membership list might easily be prolonged. In 1917 he was responsible for establishing the Laboratory of Dermatological Research at the university, and on relinquishing his chair was honored as emeritus professor of dermatology.



MILTON BIXLER HARTZELL, M.D.
1854-1927

UNIV. OF MICH.

Not all of Dr. Hartzell's contributions to medical literature can be enumerated here. Suffice it to say that besides their scientific value, they stood out by reason of their refreshingly direct Anglo-Saxon style, even in the face of the current German influences on medical literature and his numerous visits to Europe. They were sufficiently numerous, but not more so because he restrained all impulses to rush into print; he always allowed his papers to mellow. His textbook, "Diseases of the Skin," is probably his opus magnum. He always regarded as his greatest distinction in the literary way the inclusion of his paper on "Cancer in Arsenical Hyperkeratoses" in the "Transactions of the New Sydenham Society."

Dr. Hartzell was one of the most forceful characters American dermatology has known. His opinions on almost every subject were definite and sane, and the evidence had to be compelling to make him change those opinions. He was a Tory in the best sense of the word, unmoved by the newest medical fad until its worth was proved. He was a member of that group (so necessary in all organizations and vocations) which make for steadiness and solidness. By the same token, his character was sterling and his methods straightforward. The back-door methods of subterfuge and expedience were unknown to him. He was a rugged stickler for promptness, economy, accuracy and scientific honesty. He retired in 1922, following a mild apoplectic attack; with characteristic decision and good sense, he promptly gave up all activities, dermatologic and otherwise, and spent the rest of his days in the place of his birth near Gettysburg. He died of angina pectoris in March, 1927.

Dr. Hartzell bequeathed $100,000 to the University of Pennsylvania, for a department of therapeutic research.

Dermatology has lost an outstandingly forceful and wholesome character and influence in Milton Bixler Hartzell.

Abstracts from Current Literature

Malaria Treatment of General Paralysis: Histopathologic Observations in Fifteen Cases. W. Freeman, J. A. M. A. **88**:1064 (April 2) 1927.

Freeman's studies revealed that therapeutic malaria is followed rapidly by organization of the inflammatory exudate in the meninges and about the blood vessels. During the following months the exudates are resorbed, and the glia and vascular tissue regress to a great degree. Finally, the cortical architecture is reconstructed by resumed cellular polarity and restored lamination, and perhaps by thickening of the cortex. The ganglion cells of the cortex are more or less reduced in number. Fibrous glia beneath the pia and ependyma changes little. Spirochetes are not found.

On the basis of fifteen cases of general paralysis in which treatment by malaria was used and in which the patients died later, the author prophesies that eventually the term recovery instead of remission will come to be used for certain cases. Except for some reduction in the number of neurons in the cerebral cortex, and marginal fibrillar gliosis, the anatomic picture practically does not deviate from the normal, and the brain is evidently in satisfactory working condition, to judge from histologic appearances. The necessity for early treatment is indicated by complete anatomic arrest without clinical improvement in a case of four years' duration before treatment.

Otomycosis: Its Relative Frequency. J. W. Miller, J. A. M. A. **88**:1077 (April 2) 1927.

Two cases of otomycosis due to *Aspergillus niger* are reported. The symptoms were itching, pain and fulness in the ear; objectively, a wet cottony mass was discerned. Treatment with 2 per cent salicylic acid in alcohol was successful.

Cerebrospinal Fluid in Differential Diagnosis. F. F. Smith and J. B. Ayer, J. A. M. A. **88**:1078 (April 2) 1927.

The authors present a chart that is helpful in differential diagnosis.

Treatment of Acute Infectious and Contagious Diseases, with Especial Reference to Scarlet Fever, Erysipelas, Measles and Meningitis. J. H. Musser, J. A. M. A. **88**:1125 (April 9) 1927.

In erysipelas, Musser has found that local injections of immune or normal serum in front of the advancing border are of value. Likewise, antistreptococcic serum proved efficacious. In early or mild cases, the latter treatment seems specific; in severe cases, the combination of local and systemic injections of serum is recommended.

Therapeutic Effect of Hot Baths in Experimental Primary Syphilis in Rabbits. J. F. Shamberg and A. M. Rule, J. A. M. A. **88**:1217 (April 16) 1927.

In continuation of experiments showing the restraining effect of hot baths on experimental rabbit syphilis (Arch. Dermat. & Syph. **14**:243 [Sept.] 1926), the authors record a similar investigation on experimental syphilitic chancres.

In three rabbits with well developed chancres, raising the bodily temperature between 5 and 6 degrees F. caused a rapid disappearance of the lesion, with apparently complete sterilization of the animals.

VALUE OF SODIUM THIOSULPHATE IN POISONING FROM ORAL ADMINISTRATION OF ARSENIC. H. B. HAAG and W. R. BOND, J. A. M. A. **88**:1219 (April 16) 1927.

The authors gave dogs lethal doses of Fowler's solution by mouth, promptly followed by the intravenous administration of sodium thiosulphate. As all the animals died, they concluded that sodium thiosulphate is valueless against poisoning produced by the oral administration of arsenic in the form of Fowler's solution.

STUDIES ON THE KAHN TEST: I. FIFTEEN THOUSAND EXAMINATIONS COMPARED WITH THE WASSERMANN TEST. F. BERRY, L. F. EY and G. M. DELONG, J. A. M. A. **88**:1306 (April 23) 1927.

In a comparative study of the Kahn and Wassermann tests in 15,049 cases, there was complete agreement in 89.13 per cent of the cases with the two methods; relative agreement in 6.54 per cent, and disagreement in 4.32 per cent. Of the last group, representing 651 cases, 383 of the patients were in the various stages of syphilis. Of the latter number, 286 gave positive Kahn-negative Wassermann reactions, and ninety-seven gave positive Wassermann-negative Kahn reactions. The clinical evidence available in this study indicated a high degree of specificity in both the Kahn and the Wassermann tests.

GRANULOMA INGUINALE IN WISCONSIN. JAMES C. SARGENT, J. A. M. A. **88**:1394 (April 30) 1927.

A negro boy, aged 18, presented a penile and inguinal ulceration. Injections of antimony potassium tartrate produced a cure. This is the first case reported from Wisconsin. The patient had been in Milwaukee for six months preceding the onset of the disease.

MICHAEL, Houston, Texas.

HERPETIC DISEASES. J. R. PERDRAU, Brit. J. Dermat. **39**:1 (Jan.) 1927.

Perdrau outlines the main results of the recent researches on herpetic diseases, with comments based on experiments of his own. He states that the virus of herpes is neurotropic, and speaks of a lethargica strain, the incubation period of which is constantly shorter than that of a dermatropic strain. He believes that the two strains are different species of the same virus possessing fixed characters of their own. He states that various workers have demonstrated that the virus of herpes may be carried by presumably healthy persons in saliva and nasal secretions. He summarizes the principal points of his article as follows:

1. Herpes simplex or febrilis, whatever its situation in the body, is caused by a living agent or virus, which lives normally a semisaprophytic existence on the mucous surfaces of most persons. It is mildly pathogenic to man, and is probably responsible for at least some cases of zoster by local invasion of the central nervous system.

2. Some cases of zoster either are caused by a similar action of the virus of varicella or at least contain that virus in their characteristic skin lesion.

3. A different strain of the virus of herpes, pathogenic to man, is the causative agent of epidemic encephalitis.

THE PATHOLOGICAL RELATIONSHIPS OF THE HERPETIC DISEASES FROM THE CLINICAL STANDPOINT. A. C. ROXBURGH, Brit. J. Dermat. **39**:13 (Jan.) 1927.

From the clinical standpoint, Roxburgh discusses under one heading herpes simplex, febrilis or recurrens, on whatever part of the body it occurs; under another, herpes genitalis, although he believes it is possibly the same disease; and under a third, herpes zoster. He discusses, with references to the literature, the fact that herpes simplex and zoster are different diseases. He states that clinical evidence points to the fact that herpes febrilis is an infection and adds that there does not seem now to be any reasonable doubt that herpes simplex is caused by a definite ultramicroscopic virus which has been found in the sputum of patients with herpes, and which may remain after the herpes has healed, giving rise to recurrences, or that such patients may act as carriers. He discusses the natural mode of infection and immunity, and cites the arguments summed up by Doerr for and against the identity of herpes and epidemic encephalitis. He discusses the etiology of herpes zoster and considers, with references to some of the literature, the possibility of a relationship between some cases of zoster and varicella. He concludes that a large number of cases of spontaneous zoster are due to the same virus as varicella, and that this also applies to zoster in patients taking arsenic, and in patients with some other preexisting disease, such as general paralysis. He concludes his article with questions concerning the identity of zoster and varicella, and with the remark that there is, perhaps, as has been suggested, a specific zoster virus, apart from the varicella virus, which accounts for some of the cases not due to the varicella virus.

CONTRIBUTION TO THE DISCUSSION ON "THE PATHOLOGICAL RELATIONSHIPS OF THE HERPETIC DISEASES." S. P. BEDSON, Brit. J. Dermat. **39**:26 (Jan.) 1927.

Bedson has been working on the interrelationship of the viruses of herpes, zoster and chickenpox, and has also been investigating the nature of filtrable viruses. He has isolated five strains of the virus of herpes — two from labial herpes in pneumonia, two from spontaneous labial herpes, and one from herpes of the buttock — and states that all five of them cross-immunize. His results point to the virus of herpes as being different from that of zoster, in keeping with the majority of published observations. He cites cases, with experimental data, which he believes suggest that the fluid from the vesicles of certain bullous skin conditions, other than herpes and zoster, contain an agent belonging to the group of so-called filtrable viruses, capable of producing lesions in the plantar epidermis of guinea-pigs, and bearing a close resemblance to those evoked by the inoculation of the viruses of herpes and foot and mouth disease. The nature of these viruses still remains an open question. He states that the virus of herpes is always the same in the herpes vesicles in such conditions as pneumonia, malaria and cerebrospinal meningitis, and that the vesicles of zoster appear after nerve lesions produced by the virus of anterior poliomyelitis, arsenic poisoning, and injury to the nerve cells of the posterior root ganglion. From these facts he concludes that both viruses are either widespread in the human race, leading a saprophytic life in human tissues, or are of the nature of autolytic enzymes which can be produced de novo in response to cell injury by a variety of different agents.

THE PSYCHOLOGICAL FACTOR IN DERMATITIS. W. J. O'DONOVAN, Brit. J. Dermat. **39**:49 (Feb.) 1927.

O'Donovan discusses the effect of psychologic injuries and emotional strain in producing cutaneous disease. He stresses the search for an emotional history,

a history of mental injury, or causes that are known to prolong invalidity after ordinary surgical accidents in patients having a dermatitis. He cites cases to illustrate his points, and professes the opinion that "itching" is a natural function of the human skin as much as is touch, pain, heat or cold, and that abnormal itching may be an hysterical factor equally with hysterical anesthesia or hysterical hyperesthesia. He points out the following aspects and movements of these patients as a help in diagnosis: The face is often furrowed and the patient stares eagerly as he recounts his story, which is nearly always garrulous. He directs attention to manifestations of egotism on the part of these patients, and states that the rapidity with which the patient undresses to exhibit his disease is in striking contrast to his slowness in dressing after being examined. He points out the fact that there is a well defined group in which neurasthenia is responsible for the chronicity of the skin disease with which the patient is affected.

Syphilitic Macular Atrophy. G. B. Dowling, Brit. J. Dermat. **39**:55 (Feb.) 1927.

Dowling comments on the rarity of reports of this condition in England as contrasted with American reports. He reviews selected cases to illustrate essential facts and reports, with illustrations, a case of his own. He discusses the diagnosis of this condition and its differentiation from (1) macular atrophy of the same type due to tuberculosis or unknown causes, (2) anetodermia erythematodes of Jadassohn and (3) multiple benign tumorlike newgrowths of Schweninger and Buzzi.

Unrecognized Cases of Congenital Syphilis. Stuart V. Goldhurst, Brit. J. Dermat. **39**:66 (Feb.) 1927.

Goldhurst points out that the work done in attempting to stamp out syphilis, and the knowledge that vigorous treatment of the pregnant syphilitic mother means nonsyphilitic offspring, makes it incumbent that any weak links in the chain should be recognized. He believes that a large number of cases of congenital syphilis in children are missed owing to some accompanying and more obvious trouble. He appends a list of twenty-seven cases to his article, collected over a period of three years from 2,000 admissions to Queen Mary's Hospital for Children, Carshalton. Most of these patients were sent to the hospital with some gross lesion, in many cases tuberculous or simulating tuberculosis and in no case was the presence of congenital syphilis noted. When the Wassermann test was applied, the patients were all found to have positive reactions, and the results obtained from antisyphilitic treatment confirmed this diagnosis.

Papular Urticaria. Rupert Hallam, Brit. J. Dermat. **39**:95 (March) 1927.

Hallam discusses the subject of papular urticaria, with especial reference to the question of etiology, and appends abstracts of the histories of the fifty-three cases that formed the basis for his article. The point that struck him was the rapid disappearance of the symptoms, without any attempt at treatment, when the child was removed from his home surroundings to the hospital ward. He thinks that there is a common factor in these cases which should be of assistance in determining the etiology, and discusses it from the standpoint of insect bites, unsuitable food, protein sensitization and threadworms in the stools. He believes there is some ground for including this disease in the

allergic group with hay-fever, asthma and infantile eczema. He points out that in common with these diseases there is, in papular urticaria, a hypersensitiveness to protein, as exhibited by tests in some of his cases; and that, as in cases of asthma, change in environment sometimes has a favorable effect on the course of the disease. He states that it is difficult to prove that the disease in question is due to protein sensitization; but because of the unlimited sources of protein, it is also equally difficult to disprove. Heat is another important exciting cause, the disease being more prevalent in summer than in winter.

Chondrodermatitis Nodularis Chronica Helicus. A. C. Roxburgh, Brit. J. Dermat. **39**:112 (March) 1927.

Roxburgh reports a case in a retired army officer, aged 49, who had a painful nodule in his right ear for five years. The history and appearance of the lesion was identical with that of cases previously reported in the literature. The lesion was excised under local anesthesia, but recurrence took place two months later with nodules resembling the original one at each end of the scar. The microscopic appearance of the sections is described in detail, and two photomicrographs accompany the description.

Some Observations on a Condition of Chronic Erythema of the Legs. G. H. Percival and C. P. Stewart, Brit. J. Dermat. **39**:115 (March) 1927.

The authors review the literature on this condition and discuss the disease from the standpoint of etiology with a summary of the various causative factors presented to explain the occurrence of the condition. Because of the apparent relationship between this condition and erythema pernio, and the general use of calcium in the treatment of the latter, the authors were led to the assumption that calcium deficiency may figure in the etiology of chronic erythema of the legs. Blood serum calcium estimations in twelve cases did not reveal any deficiency in amount. The administration of parathyroid gland by mouth, in two cases, was followed by an increase in the total calcium content of the serum but was not associated with any evident improvement in the patient's condition. The authors therefore conclude that the condition does not supervene as a result of any deficiency in serum calcium, and that therapeutic measures directed toward raising the serum calcium are uncalled for.

Oidiomycosis of the Nails. J. Avit Scott, Brit. J. Dermat. **39**:119 (March) 1927.

Scott describes a case in a hospital matron, aged 35, who had a condition of two years' duration affecting three nails of her hands. The condition was painless in all the infected nails except the right index finger, which pained slightly for a short time. Apparently only the middle third of the nails was affected by the disease, which presented itself as grayish-yellow patches under the nails, which were only slightly raised from the nail bed and very little thickened. Scrapings from under the affected nails were of a brownish clay-like character, and when examined, after treatment with 30 per cent potassium hydroxide, showed the presence of actively budding yeastlike bodies. Colonies of the same yeast were grown on Sabouraud's medium. These oidiomyces in early cultures do not show mycelium and ferment sugars, but later, after several subcultures, they show mycelium and no longer ferment sugars. The author states that the condition may be the "porte d'entrée" of the systemic disease, and as such should be recognized and treated. Plates showing the appearance of the cultures and of the affected nails accompany the article.

Wien, Chicago.

RECOVERY OF ACHORION SCHÖNLEINII FROM CIRCULATING BLOOD. G. A. AMBROSOLI, Gior. ital. di dermat. e sifil. **67**:1552 (Dec.) 1926.

The author took cultures of the circulating blood in 1,269 cases of tinea trichophytina, 154 of tinea microsporica and 293 of tinea favosa. In 1920, he was successful in isolating from the blood of a patient a culture of *Trichophyton gypseum,* and recently he was able to obtain a culture of *Achorion schoenleinii* from the blood of a child suffering from favus of the scalp.

VACCINE THERAPY OF VENEREAL ULCER. A. DI VITTORIO, Gior. ital. di dermat. e sifil. **67**:1588 (Dec.) 1926.

Good results are reported in the treatment of thirty patients suffering from chancroid and its complications, in which the Nicolle vaccine was used intravenously.

CHEILITIS GLANDULARIS. J. J. PUENTE and A. ACEVEDO, Rev. méd. Latin. Am. **12**:671 (Feb.) 1927.

Among 300 cases of skin diseases and syphilis taken at random in dispensary practice, the authors found nine cases of this condition. They state that cheilitis glandularis is very common in its mild form.

PARDO-CASTELLO, Havana.

Society Transactions

NEW ENGLAND DERMATOLOGICAL SOCIETY

Regular Meeting, Dec. 8, 1926

C. Morton Smith, M.D., *President*

Secondary Syphilis. Presented by Dr. Garfield.

A colored woman, aged 35, gave no history of a primary lesion, but showed a generalized eruption, papulosquamous in type, with many rather large nodules and considerable pigmentation. She also showed mucous lesions and a general glandular enlargement.

DISCUSSION

Dr. Towle: We do not see this type of rash in the colored race in this city so often, but New York physicians often mention it. There seems to be almost an absence of color in the lesions; they are just a deeper black.

Dr. Smith: It was an interesting eruption, with varying sizes of nodules and general distribution. With this type of papular eruption the rash frequently extends into the palms. This left off at the wrists, and the palms were perfectly clear.

Lupus Erythematosus. Presented by Dr. Bangs.

A man, aged 41, born in England, showed extensive lesions on the face of eight years' duration. There were extensive, typical, sharply defined, erythematous and atrophic areas with considerable scarring where carbon dioxide snow had evidently been applied. He had had only home treatment during the past two years. This patient was shown as an illustrations of the extent to which the disease may progress if it is left untreated.

DISCUSSION

Dr. Blaisdell: I saw this man over a period of several years. He did very well with the carbon dioxide snow as long as he kept up the treatment, and there was a good scar. I was struck with the amount of scaling; there is more than in the average case. I think this type of case is better adapted to treatment with carbon dioxide snow than to any other form of therapy.

Dr. Oliver: I was interested in seeing a case the other day of a girl about 17 or 18 years old. I advised having the teeth examined by the roentgen ray. Nothing was wrong with the teeth. I froze one area about as large as a nickel. The girl called me up two weeks later and said the lesion which I froze blistered badly, as I had told her it would do. The other lesion had entirely disappeared. Has anybody had any experience with the gold treatments of Dr. Schamberg?

Melanotic Sarcoma. Presented by Dr. Boardman.

J. S., a man, aged 28, showed several black melanoma-like lesions, which had been present for several years on the left side of the face. They were increasing slightly in size.

DISCUSSION

DR. BOARDMAN: I should like to have the reaction of the members as to what to do with these moles. They do not do any harm on the face, but a little lower down they seem to develop into melanotic sarcomas. Is there any way of telling whether or not it is best to take out these moles? I dislike to remove them and have them return. Treatment with radium has not been satisfactory in my experience.

DR. OLIVER: I think most of these melanotic tumors can be suspected from the start if they are that peculiar inky black. I feel that the best thing is to excise them radically with a pretty wide margin. If they have started to grow, I think there is some doubt whether they are not better let alone. I remember one case of a mole that was burned out three times. It was growing again when I saw it. It was about the size of a small cherry, jet black. I advised excision, although I did not think the man was going to live. A piece about 6 inches (15.2 cm.) long was removed, and within a month he had dozens of pinhead-sized, inky black lesions about the scar. He lived about a year and a half. I think he would have lived longer if the mole had been let alone. I think physicians of the French school say that they should be let alone in all stages, whether they are growing or not. It seems to me this is a method which patients do not care much about. I saw a mole in the ear of a young woman. It had been there about six months and was growing rapidly. I talked it over with Dr. Councilman, and he told me to excise, making a wedge-shaped incision; he thought that would be the end of it. Dr. Mixter excised it. That was about eight years ago. It was a typical melanoma, but I think we got rid of it entirely.

DR. SMITH: I agree entirely with Dr. Oliver with regard to the advisability of excision, that is, it must be done with a wide margin. I remember a young man about 20 years old, who had a small nevus over the sternum. He said he was marked by a blackberry. It had caused no trouble until from three to six months before he entered the hospital. His local physician excised the growth without much margin, and it behaved just as many do. It spread like wildfire. He came in with a mass which looked like a cauliflower, a mushroom-like growth, jet black, and I think he suffered more than any one I ever saw. Morphine had no effect.

A CASE FOR DIAGNOSIS. Presented by DR. BRAGG.

W. J., a man, aged 23, had had lesions on the back of the neck and extending slightly above the hair line for the past year and a half. The lesions were almost typically furuncular in appearance. This man was treated for about a year for furunculosis, but on examination I found no pus and no odor, and could not procure a core from any of the lesions when they were opened. Nothing was obtained after opening and draining, or else a gelatinous substance was procured. These lesions were not attended by pain. I found in one of Crocker's books, I think, a fairly good description of furunculosis of the sweat glands limited to the region of the neck, axillae, pubis and the region about the anus, the latter areas being more commonly affected than the area around the neck, but it was described as a disease of the sweat glands or coils entirely. It seemed to me that this description fitted this case more accurately than anything I have been able to find. The especial treatment that Crocker recommended is of no avail in this case. I should like suggestions as to diagnosis and treatment. I have watched this man for about four or five

months, and during that time he responded to the roentgen ray with total freedom from lesions for about two or three months, but I did not dare to give him any more. I gave him practically three units in divided doses. I think that if I could continue the roentgen-ray treatment, it would control the condition, but it might do more harm than good.

DISCUSSION

DR. LANE: I have had under treatment within the last year and a half a boy with similar lesions on his forehead and cheeks. Two or three of the lesions were perhaps as large as any two of the lesions which this young man showed, and they had the same sort of discharge that Dr. Bragg mentioned. In incising them we obtained this glairy discharge, but could not get it all out. It burrowed under the skin. Under roentgen-ray treatment the condition cleared up rather slowly. I followed it up with a series of treatments with ultraviolet light, and when I saw him in the summer I was much surprised to find that his forehead was absolutely smooth. I had expected that he would have infiltrated areas at the sites of the former lesions, but there was only a slight pigmentation.

DR. CHEEVER: I had a patient with an almost similar condition above the ears. I used both the roentgen ray and ultraviolet ray. The condition cleared up entirely on one side, and the hair grew back on what I thought was going to be a permanent scar, but one place on the other side would never heal with any treatment. When the lesion was opened and drained, it would fill up again with fluid which was negative on culture.

FOLLICULITIS DECALVANS (?). Presented by DR. CHEEVER.

An Italian boy, aged 8, had a lesion on the scalp, which his mother said followed a scalp wound. The boy had had considerable treatment, and at one time there was crusting, which cleared up with an ointment of sulphur and salicylic acid. He presented an area the size of a silver dollar on the crown on which tufts of hair were growing. Between these tufts there were slight scarring and atrophy. No organisms had been found in the scales or hair.

DISCUSSION

DR. TOWLE: I am not exactly satisfied with the diagnosis. The whole area was white, with no signs of infection. It did not seem to me in this light to be atrophic. With that history of scratching, I should want to wait before I made a positive diagnosis. With no organism and no fungus found, the diagnosis of tinea cannot be suggested.

DR. CHEEVER: I am sure that a bright light on these lesions shows scarring. In passing the finger over them, the finger definitely rises in a place where the hair is normal, showing that the skin is thicker where the hair is.

DR. OLIVER: I suggest alopecia areata.

DR. BOARDMAN: Would not a septic process cause pretty nearly this condition? Septic conditions in the scalp with more or less falling of the hair and scarring are frequently seen. I wonder whether that might not be the cause in this case.

DR. BRAGG: I rather agree with Dr. Boardman. I wonder whether the slight scarring could not be accounted for by the original lesion caused by the injuries that the boy received rather than by the secondary infection.

Dr. Burns: Folliculitis decalvans always seems to me an extremely chronic, slowly progressive process, the characteristic lesion being a definitely follicular pustule, rising slightly, with a subjective symptom of slight itching or burning, running a slow course and gradually subsiding. Meanwhile, there are smaller lesions arising in adjacent regions, and they in turn slowly subside, leaving more or less destruction of tissue with atrophic or superficial scarring. An area as large as that occupied in this case would take many months or several years to increase to such a size. Nowhere did I see evidence of subsiding in this case, as the follicular pustules were evident in such small areas. Neither could I make out anything more than the most superficial atrophy in any area of the lesion, and I was not satisfied with that. With the history of trauma already brought out, and what apparently had taken place in the sore, it seemed to me that there had been a superficial septic process to account for the present appearance. It does not look to me like folliculitis decalvans.

Granuloma Inguinale (?). Presented by Dr. Boardman.

S. N., a woman, aged 26, an American housewife, had a sore which started ten weeks ago as a pimple on the inner side of the right thigh, about 2 inches (5 cm.) from the vulva. The lesion broke down, leaving a dirty ulcer which has persisted. About the same time a small, indurated, eroded lesion about the size of a bean appeared on the fourchette. This lesion has grown somewhat smaller. New lesions on the labia majora, just anterior to the lesion on the fourchette, have appeared during the last two weeks. Several dark-field examinations of specimens from lesions on the fourchette and on the thigh have given negative results. The Wassermann reaction has been negative twice in the last few weeks. There are no signs of secondary syphilis. No cultures have been made. It did not seem to me like a chancroid. It did not spread, it just stayed where it was for a week or two at a time. There was considerable induration. I was sure at first that it was a primary lesion. There was a distinct nodule, but secondary lesions and a positive Wassermann reaction should appear if this is syphilitic. I do not think it is syphilitic. I have been painting it with argyrol, and it is a little better.

DISCUSSION

Dr. Oliver: I think a factitious condition should be considered.

Dr. Garfield: I think there is considerable improvement. In my opinion it is a pyogenic lesion, rather than a syphilitic lesion.

Dr. Smith: This case reminded me of one I saw a number of years ago —that of a patient who showed an indolent lesion much like this one. His physician had assured him that the condition was not syphilitic, and in order to show him that it was not, he took his pen-knife and a bit of the secretion from the original lesion and made another little abrasion, and inoculated this abrasion with the secretion. The transfer was successful, except that it did not stay within bounds but spread. The original lesion was just back of the corona, and he made the experimental inoculation along the shaft of the penis. It spread so much that he had a most persistent lesion to cure. I think in the present case the lesion is pyogenic. I do not think it is granuloma inguinale.

Late Syphilis. Presented by Dr. Lloyd.

Mrs. L. S., aged 34, married, for three months had had a slightly crusted, granulating, destructive lesion along the edge of the left ala, extending into

the nose and down to the upper lip. She had suffered from hoarseness and intermittent loss of voice for the past year and a half. She had no past history of primary or secondary syphilis. Examination of the throat did not reveal a pathologic condition in the pharynx. The epiglottis was involved in an ulcerative process, probably syphilitic, which had partly destroyed the rim of the cartilage. The cords were thickened and did not relax easily. The Wassermann reaction was strongly positive.

DISCUSSION

DR. BLAISDELL: When the patient first came to the hospital she presented a rather interesting differential diagnosis between syphilis of the nose and lupus vulgaris. The duration was short. There was relatively little destruction; no nodules could be made out. On the other hand, the color was not particularly that of syphilis; it was not dark, but rather bright; and it had not spread rapidly over three or four months. She had no other history suggestive of syphilis. She is married; her children are all well; she has had no miscarriages and gave no history of rash.

DR. LLOYD: There was destruction of the epiglottis. The patient said she had had hoarseness for over a year and a half; but this had not caused her enough trouble to seek a remedy. The diagnosis of syphilis was suggested at the time of the examination of the throat.

ARGYRIA. Presented by DR. SMITH.

Miss L. M., aged 26, had been ill since August, 1925, when she was poisoned by eating crabmeat salad. The salad did not affect the others in the party. She had lost much weight; had gone down to 109 pounds (49.4 Kg.) in the spring, though at presentation she weighed 123 pounds (55.8 Kg.). In November, 1925, she noticed a change in the color of her skin, which increased, and which now is general and uniform above the knees. It is present in the mucous membrane of the mouth, also in the sclera. She said she had not taken pills, powders, or other medicine, except occasionally for her stomach. It then developed that morning and night for about three years she had been using in each nostril at least 5 drops of a 10 per cent solution of lunasol, prescribed by a nose and throat specialist.

DISCUSSION

DR. SMITH: My reason for asking this young woman to come here was the rather infrequent occurrence of cases of argyria as marked as it is in this patient, and with the forlorn hope that somebody might have a suggestion as to some treatment that would decolorize her to a certain extent. It was extremely interesting to me to note the futility of my questioning. She seemed to me to be the color of silver when I first looked at her, but she said she had not taken drugs of any sort, and there was not much left but Addison's disease on which to base a diagnosis. The pigmentation was not marked in the axillae and groins as in Addison's disease, and she was growing better instead of worse, having increased in weight from 109 to 123 pounds since last spring, and her chief complaints did not fit in with the chief complaints in Addison's disease. She had gastric disturbance and a good deal of numbness, particularly in the hands, enough so that it bothered her in her work, which was typewriting. It took her a long time to dress because the fingers were so numb she could not tell what she was doing. When I saw her the second time she said the only thing she had taken was bicarbonate of soda, and after

I had practically given up any expectation of getting any history of taking silver, she said she had been using a preparation in her nostrils for two or three years, at least 5 drops in either nostril. One day she had noticed that it stained her handkerchief black. She then produced a small bottle of lunasol. She said she had used it because it was the only thing that gave any relief in a nasal condition, and that she had noticed it trickle down her throat; thus it was absorbed through the mucous membrane of the stomach. The only thought that occurs to me is that no one has suggested the possibility or probability of thiosulphate having any effect in such cases. The patient says that her friends tell her she is not as dark as she used to be. Her mother did not seem to share in this optimistic belief. An unfortunate feature of this young woman's case is that the physician who has been taking care of her and doing as much good as anybody, so far as general health is concerned, is color blind. She looked all right to him, and he could not appreciate that she was not gaining. Do you think it is worth while to try thiosulphate in this case?

SCLERODERMA? Presented by DR. LANE.

An American housewife, aged 31, married, began two years before presentation to notice "pains" ("rheumatic"), which moved from one place to another, over her arms, neck and legs. These pains persisted for about a year, at the end of which time her hairdresser remarked that her neck was "hard." A similar condition was noticed on her face. For the past six months there had been swelling and "shininess" of the face and neck; with difficulty in swallowing; cold, "clammy," hands and feet; inability to wrinkle the forehead, and a gradual increase in stiffness across the chest, upper part of the abdomen and arms. Treatment has included fourteen treatments with light, electricity, ether rubs, protonuclein tablets, citrocarbonate and thyroid extract. She has not improved. On examination, the skin and underlying tissue were firm, hard and indurated, most noticeably over the back of the neck, but also over the face, lower ribs and upper part of the abdomen. The extension of both elbow joints was limited. The hands and feet were cold and bluish. There was an almost imperceptible macular rash. Routine examinations of blood and urine gave negative results. Laboratory observations were as follows: Wassermann reaction, negative; nonprotein nitrogen, 22 mg. per hundred cubic centimeters; blood sugar, 85 mg. per hundred cubic centimeters; blood calcium, 10 mg. per hundred cubic centimeters; basal metabolic rate, 5; pulse rate, 104.

DISCUSSION

DR. TOWLE: This is a most interesting condition in its distribution and extent, the rigidity of all the tissues and the patient's inability to open her mouth. Her motions are definitely limited. She can turn the head only a few degrees to either side. The shoulders seem to be hidebound. Respiration is difficult. The case is interesting from the standpoint of what can be done with such an extensive case and what caused it.

DR. BLAISDELL: I want to get a report on one point; that is, the presence of arsenic in the urine. An article by someone in California reports the finding of arsenic in the urine in a number of cases. I have not that report yet.

DR. BRAGG: It seems to me to be a disease of the muscles rather than of the skin. I do not see how it can be diagnosed as scleroderma. I have never seen a case of scleroderma that looked like that or felt like it.

DR. GARFIELD: The skin seems to be more or less movable over the underlying tissue. The skin looks normal; it does not have as much atrophy as one would expect to find in so extensive a process.

DR. OLIVER: I never saw a case in which there was such a normal appearing skin as this is when one looks at it a little way off. I remember a boy, the child of a physician in Brockton, who, after measles, developed deep lesions that looked like this. Dr. Highman or Dr. Wise immediately began quoting some foreign literature on cases like this, which occurred after some infectious disease, and predicted that the condition would clear up. It did clear up. The skin appeared normal, but there was a deep involvement of the muscles; some particular type of sclerema, I think it was called.

DR. BOARDMAN: I think it would be of great interest to have a neurologic report in this case.

NEW YORK ACADEMY OF MEDICINE, SECTION ON DERMATOLOGY AND SYPHILIS

Regular Meeting, Jan. 4, 1927

M. B. PAROUNAGIAN, M.D., *Chairman*

A CASE FOR DIAGNOSIS (ANGIOMA). Presented by DR. GOODMAN.

R. De T., an Italian laborer, aged 42, who had been living in the United States for nineteen years, gave a negative history, except that he had had influenza in 1919 and an operation for hernia in 1924. In the latter part of 1917, a lesion appeared anterior to the right tragus and later, a similar lesion appeared on the abdomen. These remained unchanged for six months, when the eruption became generalized. The early lesions were said to look like the lesion shown under the left nipple. This appeared at first sight to be a lymphangioma. There were a number of small, deep-seated, thick-walled vesicles close together, which later changed to the appearance of the lesions shown on the neck, on the side of the cheek and on the wall of the chest. This type of lesion was unilocular, almost the size of a small grape, thick-walled, filled with dark fluid, but so compressible that no vestige of color remained when a diascope was used. The patient said that these saclike lesions opened and discharged sanguineous material, and that the third type of lesion presented on the sternum persisted. This type consisted of a small scaly patch, and had no resemblance to the other two types.

Still another type of lesion was present on the nose. It resembled an engorged capillary with the normal constricted vessel at each end.

The particular sequence given by the patient was unusual and was not described in the textbooks or other literature available.

DISCUSSION

DR. POLLITZER: I question the story of the sequence of events, so far as the association of the small yellowish papule under the left nipple with the other lesions is concerned. The man has a considerable number of dilated capillaries on the abdomen and chest, and a few small cavernous angiomas—for that is what these lesions are. These angiomas are superficially located, the skin over them ruptures easily, there is some bleeding, and then they

heal up and disappear. There is a large group of diseases affecting the blood vessels of the skin, with which we are not well acquainted, but there is no doubt in my mind that we are dealing here with multiple cavernous capillary angiomas. What causes them, what the impetus is which makes the capillaries develop into angiomas at various points, is not known; but I am sure there is no association with the small yellowish papular lesion on the chest under the nipple; that is firm, not compressible (and in that respect easily differentiated from lymphangioma), and has a lichenoid appearance. It seems to me that this minute papule is probably a nevus.

DR. SATENSTEIN: I think that if all patients over 45 years of age were examined we should find a number of them with these small angiomas. I believe the case fits into this class of angiomas. I do not think there is anything extraordinary about it.

DR. CANNON: I think too much stress should not be placed on the man's history. I believe with Dr. Pollitzer that the lesions are angiomas.

DR. WOLF: I think that this case is one of hemangiolymphangioma. There is a dilatation of the superficial lymph spaces into which the ruptured capillaries may bleed. The trauma that is necessary to rupture the vessels may be slight; ordinary scratching may be sufficient to cause a hemorrhage into these lymph sacs.

DR. POLLITZER: I should like to say a word in regard to the small cavernous angiomas — the "ruby spots" — that occur on the torso about middle life and after. They are extremely common; I have seen thousands of them and have never seen nor heard of their rupturing. There is not the slightest ground for a diagnosis of lymphangioma in this case.

ERYTHEMA INDURATUM. Presented by DR. OCHS.

The patient was previously shown at the December, 1926, meeting of the Manhattan Dermatological Society.

DISCUSSION

DR. SATENSTEIN: Dr. Ochs has observed the patient going through the entire course of Bazin's disease, and he is in a position to know whether it is active or not. When the patient was presented at the Manhattan Dermatological Society last month there was a difference of opinion as to the diagnosis.

DR. ELLER: I do not agree with the diagnosis of erythema induratum. The lesions on the right leg are of three years' duration and to me they do not resemble the lesions seen in erythema induratum; they are too superficial. At the last presentation this condition was diagnosed as lichen planus on account of the color and because of the presence of white lesions on the buccal mucosa. I did not agree with that diagnosis. I believe that these lesions are artefacts, produced by acid or by some other chemical.

DR. WISE: I am inclined to agree with Dr. Eller in regard to an artefact. I think we have to accept precisely what Dr. Satenstein said about the observation of Dr. Ochs, who has watched the case for three years and has seen it progress through the various stages which he ascribes to erythema induratum. It is an unusual location for erythema induratum, but it is my opinion that an artefact plays an important part in the condition which it now presents. The location near the ankles is susceptible to atrophic changes. I agree with Dr. Eller that an artefact is the probable diagnosis at present. What the lesion was originally, is hard to say.

DR. POLLITZER: I agree with what the other speakers have said. I see no reason for presenting this as a case of erythema induratum. Whatever this condition may once have been, at present it is simply some scars which are obviously the result of cauterization with an acid.

SYRINGOMYELIA (MORVAN'S DISEASE). Presented by DR. ROSTENBERG.

The patient, aged 54, was born in Poland and was the mother of five healthy children; she had had three miscarriages. She said that her condition had begun about twenty years before, manifested by pain and weakness in the right arm. She then noticed that she would burn herself without observing it. About ten years before, she had had an infection on the fifth finger of the right hand, which was followed by the loss of the end phalanx. She also said that following a strain a tumor had appeared on the upper part of the right arm, and had never disappeared.

Examination showed about a dozen old scars of the size of a silver dollar on the arm and on the thorax. On the lower part of the arm there was a lesion resembling an indolent second degree burn. The distal phalanx of the fifth finger of the right hand was missing, and there was contracture and ankylosis at the first and second phalanx of the second finger. The nails of the thumb and second finger were deformed and of a dirty grayish color. The skin of the palms appeared thickened and rough, and was fissured on the proximal ends of all the fingers. Flexion of the elbow showed a tumor, which seemed to be a hernia of the biceps muscle. There were marked thermo-anesthesia and analgesia all over the right arm and the right side of the trunk. The tactile sensation was present. There was no enlargement of the ulnar or any other nerve. The Wassermann reaction was negative.

DISCUSSION

DR. ABRAMOWITZ: I am glad to have seen the patient, and from the history and the examination I think the condition conforms to Morvan's disease or syringomyelia.

DR. WOLF: We have had occasion to treat such patients and a therapeutic suggestion may be of some value. Syringomyelia is known to be an incurable disease. In a few cases deep roentgen-ray therapy over the spinal column has proved beneficial.

DR. WEISS: I can add another case, although of a different etiology, which somewhat resembles the case in question. A school teacher acquired a second degree burn of the arm without having felt the sensation of heat, and was unpleasantly surprised to find that she was burned. A few months later she returned with a similar burn on the same site, caused in the same way. The patient had a kyphosis, and I am of the opinion that the resultant compression of the upper spinal nerves of the right side caused the cutaneous anesthesia. There were no other symptoms of Morvan's disease present.

DR. POLLITZER: There is no question about the diagnosis; it is a typical case. With regard to the etiology of the ulcerations on the finger, probably most of you will agree that they are purely traumatic. She has no thermal sense in the afflicted areas, and, not knowing when she has touched a hot stove, she gets a more severe burn than would a normal person whose hand would be jerked away instantly. There is one point it may be well to make.

The characteristic disturbance in Morvan's disease is the dissociation of the various sensory pathways; the areas of anesthesia to heat and cold and to touch do not correspond; a given area may be anesthetic to heat while preserving another sensation. The dissociation of the various anesthesias is a characteristic feature of syringomyelia. I would suggest that Dr. Rostenberg examine the patient again from that point; it would be an interesting study.

DR. ROSTENBERG: There is a marked dissociation of sensory symptoms, namely, a complete thermo-anesthesia and analgesia, but tactile sensation is preserved, a condition which is characteristic of syringomyelia, of which Morvan's disease is one type. As to the therapeutic suggestion regarding the roentgen ray, I do not believe that would be of any help. The condition seems to have been stationary for a number of years, and might not progress any further.

MYCOTIC GRANULOMA. Presented by DR. CANNON.

J. J., a Russian tailor, aged 42, was presented at the December, 1926, meeting of the Section. The Wassermann reaction was positive, and the eruption had not improved as a result of two injections of arsphenamine and three of mercury.

DISCUSSION

DR. ABRAMOWITZ: At the last meeting I said that I thought the diagnosis of syphilis should be excluded. I think that there has been improvement and that this improvement is due to the antisyphilitic treatment. I am still certain that the condition is syphilis, and I think the antisyphilitic treatment should be continued without any other local measures.

DR. POLLITZER: The opinion we may have of this difficult case will depend on the reaction to treatment, and there is a difference in the story told by the different speakers as to whether or not the improvement occurred under local treatment alone or only after antisyphilitic treatment. I should like a definite statement on this question.

DR. CANNON: The lesion improved decidedly under treatment with acriflavine, but this was discontinued after fourteen days and the antisyphilitic treatment was begun, under which there has been no apparent change. A Wassermann reaction of 4 plus was reported at the last meeting. We felt sure that the patient had syphilis, and we wished to determine whether the lesion on the hand was due to syphilis or to some other cause.

DR. POLLITZER: Dr. Cannon's statement is unequivocable. I think most of us agreed when we saw this man last month that whether he had syphilis or not had nothing to do with the case. A man with a syphilitic infection presented this questionable lesion on the hand; a therapeutic test, which I think is adequate, has been made. Under topical treatment alone the lesion improved to its present condition. Two weeks ago antisyphilitic treatment was instituted — treatment which should have cleared up the lesion entirely. It has not affected it in the least degree, according to the testimony of Dr. Cannon. In view of the result after an adequate therapeutic test, I think the lesion on the hand must be regarded as a mycotic infection.

DR. ELLER: I do not know whether it is syphilis or a mycotic infection, but I do not think the improvement under treatment with mercurochrome-220 soluble or acriflavine would disprove syphilis, for when I saw the lesion a

month ago there was a marked secondary infection in it that would be subject to improvement under local treatment. The fact that the lesion did not disappear or improve under the small amount of antisyphilitic treatment does not militate against the diagnosis of syphilis, for it might require as many as ten injections of arsphenamine or more to cause a disappearance of a syphilitic lesion of this type. The man has syphilis with a 4 plus Wassermann reaction, and I would suggest continuing the treatment for this condition, with close observation of the local lesion.

DR. ABRAMOWITZ: Were fungi found?

DR. HOPKINS: We examined for fungi and none was found.

DR. POLLITZER: Do you consider negative results of examination conclusive?

DR. HOPKINS: Not at all.

DR. PAROUNAGIAN: At the last meeting I suggested the diagnosis of syphilis, and I think it would have been much better if one plan of treatment had been followed—antisyphilitic or local treatment alone. A 4 plus Wassermann reaction means syphilis, and it is proper to treat him for that and leave the local treatment alone; then, if it does not get better, try something else.

DR. SATENSTEIN: I agree with Dr. Eller. In all open lesions there is always a considerable amount of secondary infection; it makes no difference whether one uses acriflavine or plain salt water, if the parts are kept clean there will be considerable improvement. That does not prove anything one way or another. I do not agree with Dr. Pollitzer that two treatment with arsphenamine and two with mercury will cure an ulcerated gumma. I think that the therapeutic test in this case is not sufficient, and agree with the chairman that one method of therapy and test should be followed before a decision is made.

DR. POLLITZER: I wish to correct a misapprehension. I should not expect a lesion of this kind to be completely cured in a couple of weeks, but to be markedly improved. According to the history, the improvement shown took place before the antisyphilitic treatment was employed.

DR. CANNON: The pathologic histology was not that of syphilis.

DR. PAROUNAGIAN: I think the antisyphilitic treatment should be continued, and that the patient should be presented again.

MULTIPLE CHANCRES. Presented by DR. PAROUNAGIAN and DR. MASON.

C. R., colored, a native of the British West Indies, was first seen on Nov. 30, 1926, when he presented a small lesion on the prepuce of three weeks' duration. Within one week six more lesions appeared, and a few days later six more appeared, making a total of thirteen lesions.

The dark-field examination on seven of the sores was positive on Nov. 30, Dec. 6, and Dec. 28, 1926. Results of the first two Wassermann tests were negative, but the third test was reported 3 plus on Dec. 28, 1926. Some of these lesions developed while the patient was under antisyphilitic treatment.

DISCUSSION

DR. SATENSTEIN: I recall a similar case reported by the late Dr. Gottheil. The patient had what appeared to be herpes progenitalis. Every one of the vesicles became indurated; there were thirteen or fourteen of them. This case is probably similar to that, but much more advanced.

DR. HOPKINS: I should like to know whether we do have to regard these lesions as primary. The man has secondary lesions on the shaft of the penis. It seems to me that those on the glans and prepuce might be interpreted as hypertrophic papules.

DR. PAROUNAGIAN: Dark-field examinations were made on seven of the lesions, all of which gave positive results. The history is clear. The patient said that he first noticed a sore at the sulcus. A week later, six new lesions appeared and six more appeared about a week afterward, making a total of thirteen. As we know, this is too short a period for moist papules or secondary lesions to occur. Furthermore, all these lesions were distinct, indurated lesions with elevated borders, and some had depressed centers. The moist plaques or condylomas are not indurated; as a rule, they are soft, more or less elevated, and covered with a grayish membrane. The patient has no generalized secondary lesions, which he must have before he develops condylomas. I maintain that they are all distinct chancres and not moist papules. As far as the numbers are concerned, I do not think they mean anything. Dr. Satenstein mentioned a case of Dr. Gottheil's, which reminds me of another of Dr. Gottheil's patients, whom he presented at the Manhattan Dermatological Society, a man who had eleven chancres on the back of his neck, the result of a human bite. Several years ago I presented a man from the Gouverneur Hospital who had seven chancres about the mouth, and more recently I presented another from Bellevue Hospital with five distinct chancres from one inoculation in the following locations: moustache region, upper lip, lower lip, on the abdomen and on the shaft of the penis. Dark-field examination was positive on all of the lesions; he had a roseola, and a 4 plus Wassermann reaction.

SECONDARY SYPHILIS WITH TERTIARY MANIFESTATIONS. Presented by DR. PAROUNAGIAN and DR. MASON.

A. K., a man, aged 26, had contracted a chancre one year previously. His treatment had consisted of one intravenous and thirty intramuscular injections. During the three months previous to presentation he had developed four large ulcerated lesions on the right forearm, on both elbows and one on the back of the neck. The patient was in poor physical condition. The lesions were typical gummas, and rightly belonged to the tertiary stage.

MEATAL CHANCRE. Presented by DR. PAROUNAGIAN and DR. MASON.

P. M., an Italian, aged 30, was admitted to the Bellevue Clinic on Dec. 30, 1926, presenting a meatal sore. He gave a history of repeated exposures. The Wassermann reaction was plus-minus, but the dark-field examination was positive.

LEUKOPLAKIA OF TONGUE AND BUCCAL MUCOSA. Presented by DR. PAROUNAGIAN and DR. MASON.

O. McC., aged 52, who gave a history of sore throat and ulcerated tongue thirty years previously, applied three years ago to the clinic for treatment. The Wassermann reaction was 4 plus. He had been a heavy smoker. Examination revealed a severe case of leukoplakia of the mouth. He received eight injections of neoarsphenamine, fifteen of mercuric salicylate, and forty of bismuth. Little improvement was noted.

SYPHILITIC OSTEOPERIOSTITIS OF LEFT TIBIA. Presented by DR. PAROUNAGIAN and DR. MASON.

J. D., aged 29, said that he had had a genital chancre about seven years previously. He had received five intravenous and five intramuscular injections at the Buffalo City Hospital, three years after the infection.

His Wassermann reaction on Dec. 29, 1926, was 4 plus. The swelling was located on the upper and anterior portion of the left tibia. A roentgen-ray examination made at Bellevue Hospital confirmed the clinical diagnosis.

NEVUS VASCULARIS. Presented by DR. MCCAFFERTY.

R. McD., aged 24, born in Ireland, who was presented from the service of Dr. Dillingham, N. Y. Polyclinic Hospital, had a port-wine mark of the face which involved the sclera of both eyes.

ACTINOMYCOSIS. Presented by DR. HOPKINS for DR. FEIT.

The mother of the patient, J. B., aged 7, born in the United States, said that she had removed a loose tooth from the child's mouth with her finger. On the corresponding portion of the skin overlying the tooth appeared a hard lump about the size of a bean, on May 10, 1926. This grew very large and hard. Two operations had been performed and iodide of potash had been administered. The patient also received roentgen-ray treatment, all without improvement. There had been considerable discharge and a search had been made for fungi with negative results. On July 4, 1926, the patient was referred by Dr. Hooks to Dr. Feit, who made a diagnosis of actinomycosis, and was able to demonstrate fungi under the microscope. Cultures were negative. The whole cheek, from the left lower eyelid to about the level of the mouth, and extending halfway to the ear, was as hard as stone and was covered with bluish-red nodules, varying from the size of a small pea to that of a hazelnut. Some of them exuded pus.

PARAPSORIASIS LICHENOIDES IN A PATIENT WITH SYPHILIS. Presented by DR. ROSTENBERG.

H. F., aged 48, an American, had had syphilis twenty years previously. He had been treated with injections of mercury and potassium iodide internally for about a year and a half, and all symptoms had disappeared. The first Wassermann test was made about ten years ago; it was negative, as were several subsequent tests. The condition for which he was presented appeared in the beginning of 1926. The eruption was considered a syphilitic rash, but did not disappear under specific treatment.

The patient was referred to Dr. Rostenberg early in the summer of 1926, when he presented a profuse eruption which closely resembled a papulosquamous syphilid. A Wassermann reaction was negative; several injections of arsphenamine had no effect. Then the diagnosis of parapsoriasis was made, and the patient was given parathyroid treatment, which apparently had a slight effect on the eruption. There was no itching at any time.

LUPUS ERYTHEMATOSUS. Presented by DR. ROSTENBERG.

R. Z., aged 26, presented two discoid patches on the face and about four lesions on the scalp, two on each parietal region and the other on the

hairline in the frontal region. The patches varied in size from that of a twenty-five-cent piece to that of a silver dollar. The skin was red and scaly; there was marked atrophy and a complete loss of hair in the patches. The distal phalanges of all the fingers on both hands were involved. The skin on both surfaces was slightly atrophic and violaceous. On the tip of some of the fingers there was slight fissuring. The toes were not affected.

XANTHOMA. Presented by DR. HOPKINS.

J. M., a white man, aged 35, born in the United States, had suffered from palsy since the age of 2. The condition presented on the eyelids was of ten years' duration. The mother and two brothers had the same condition. On both lower eyelids were yellowish tumors about the size of a pea, some of which were isolated; others were coalescent in larger masses which measured about one by one-half inches (0.5 by 0.2 cm.). Over the kunckles were movable lobulated tumors.

GUMMA OF THE TONSIL. Presented by DR. HOPKINS.

E. M., a man, aged 27, married, born in the United States, had had the condition presented for three months, increasing in size. He had at some time received an intravenous injection, after which the condition improved, but it had recurred. There was no history of a primary lesion. He had been married for about a year and had a child 5 months old; his wife had had no miscarriage. The patient contracted gonorrhea fourteen weeks previous to presentation. In the left tonsillar region was an extensive and deep ulceration reaching from the palatoglossal arch to the uvula and downward to the base of the tongue. The crateriform ulcer was filled with a heavy, gangrenous mass. The surrounding tissue was infiltrated. The infiltration pushed the uvula to the right and was moderately hard. There were no enlarged regional glands and no eruption on the body. Results of a Wassermann test made on December 27 were negative; on January 3 it was 4 plus with all antigens.

ERYTHEMA MULTIFORME BULLOSUM. Presented by DR. ANDREWS. (From the Vanderbilt Clinic.)

G. B., a widow, aged 26, was born in the United States. She had had a generalized eruption for one week, and had had a similar eruption a month previously, confined to the hands. She had been taking phenolphthalein preparations for severe constipation. She had not had sore throat in recent years. There were numerous erythematous patches varying in size from that of a lentil to that of a penny distributed symmetrically over the trunk and extremities. Many of the lesions showed a marked edema and vesiculation. The lesions, especially those on the dorsum of the hands, suggested herpes iris. There were numerous bullous lesions on the face and a vesicular eruption on the lips.

ARTERIOVENOUS ANEURYSM. Presented by DR. CANNON. (From the Vanderbilt Clinic.)

M. V., a Czechoslovakian woman, aged 41, presented an arteriovenous aneurysm on the middle finger of the left hand, causing great venous dilatation proximal to it. A venous tap at the elbow elicited arterial blood.

PHILADELPHIA DERMATOLOGICAL SOCIETY

Regular Meeting, Jan. 7, 1927

S. S. GREENBAUM, M.D., *Presiding*

SCROFULODERMA. Presented by DR. CHAMBERS.

The patient, a white man, aged 50, had been presented before the Society eight months before, with a diagnosis of scrofuloderma. In 1923, he had had a boil on the right side of the neck, which had been lanced. The infection had spread over the whole side of the neck. It was raw and ulcerated, with many draining sinuses from which diphtheroids were obtained. He had had various kinds of treatment before the first presentation. Since then systematic electrodesiccation had been carried out, the last treatment having been given on Aug. 11, 1926. He still had two small sinuses, from which drainage was slight. The rest of the area had healed.

DISCUSSION

DR. SCHAMBERG: Had the patient been treated by radiotherapy previously?

DR. CHAMBERS: There had been little previous radiotherapy.

DR. SCHAMBERG: These patients often do well under the roentgen-ray treatment — particularly when they have the ulcerative type of scrofuloderma. I congratulate Dr. Chambers on the result and on the cosmetic appearance.

A CASE FOR DIAGNOSIS. Presented by DR. CORSON.

K. L., aged 46, a white man, a farmer, had been in good health until three years before presentation. He had then noticed a split-pea-sized nodule on the lower lip. This had become encrusted and had broken down. Then pustules had appeared on the back of the neck, and had spread over the scalp, with secondary crusting, oozing and granulations. He had been given potassium iodide, thirty drops three times a day, for two months previous to his admission to the hospital, and he had been taking a patent medicine for three or four years previously. The urine, on admission, showed iodine. The scalp was much more crusted and repulsive on admission, and treatment with fomentations had softened the crust. It smelled somewhat like favus. His hair has begun to grow since treatment was started. No fungus was found in the scalp or crusts. The iodine was thought to have a large influence on the present eruption, because he had suggestive pustules. The Wassermann reaction was negative on several occasions. Urinalysis was negative, except for the presence of iodine. This eruption was first thought to be pemphigus, from the appearance on the lip, but subsequently it did not give any indication of that disease.

DISCUSSION

DR. WRIGHT: At present there are no lesions typical of pemphigus, but the involvement of the mouth and the presence of axillary lesions make me incline toward that diagnosis.

DR. SCHILDKRAUT: I know of a case of pyoderma in a man of weakened resistance which was similar to this case.

DR. SCHAMBERG: I think the most likely diagnosis is that of an iodine or bromine eruption; though if it is purely an iodide eruption, it should be

clearing up. He has not been given iodides for several months. Another possibility is deep-seated glanders — a chronic form which may last a long time without constitutional disturbance. I recommend the mallein test.

DR. SIDLICK: The patient has improved remarkably under the daily administration of 50 cc. of physiologic sodium chloride intravenously.

DR. GREENBAUM: I think that the lesions in the mouth do not exclude the diagnosis of an iodide eruption. It should be remembered that chlorine replaces bromine, but not iodine.

DR. SIDLICK: I should like to ask Dr. Schamberg how long it takes before iodides are entirely eliminated.

DR. SCHAMBERG: Iodides are readily absorbed, and readily eliminated, much more easily than bromides. All metals are deposited in the tissues to a certain extent, and resorbed into the blood; and, while the maximum elimination of a metal usually occurs within a few days, traces may be found over a long period of time.

A CASE FOR DIAGNOSIS. Presented by DR. SCHAMBERG and DR. WRIGHT.

L. B. R., aged 60, first noticed a soreness of the tongue in August, 1926. This gradually became worse during the ensuing three months. For some weeks before presentation he had had a number of elevated painful lesions on the legs, and the soles had shown a localized thickening of several years' duration. Examination in November, 1926, revealed an extensive white membrane over the tongue having the appearance of the extensive leukoplakia which is occasionally seen in an old case of syphilis. On the lower third of the legs were numerous pustular and hyperkeratotic elevated lesions, suggesting strongly a bromoderma. On questioning, it was found that the patient had been taking mercuric iodide, but apparently no other medicine. On the inner surface of the soles were two hyperkeratotic, sharply marginated lesions, roughly 1½ by 2 inches (3.7 by 5 cm.) in diameter. These were deeply infiltrated. On the basis of the extensive membrane involving the tongue and the infiltrated lesions on the foot, a diagnosis of late syphilis was made, and blood taken for the Wassermann and Kahn tests. The reactions were reported as being moderately positive. Under antisyphilitic treatment with bismuth, the tongue has cleared up at least 75 per cent. The lesions on the legs are gradually flattening.

DISCUSSION

DR. SIDLICK: The grouping of the lesions on the trunk suggest syphilis, but the other lesions on the back look more like those of lichen planus.

DR. SCHAMBERG: The appearance of the eruption has changed considerably since treatment was instituted. I think that the patient had an old case of syphilis with a syphilitic glossitis and leukoplakia which yielded to treatment. On the legs he had an inflammatory, patchy eruption which looked like an iodide eruption. Sixty per cent of that has disappeared. He had a symmetrical keratoderma on the soles. In addition to the syphilis he had most probably an iododerma.

A LESION OF CREEPING ERUPTION PRODUCED BY AN ANT. Presented by DR. WRIGHT for DR. KLAUDER and DR. HOLLINGSWORTH.

H. F. G., aged 10, a patient at the Westchester County Hospital, presented a raised linear serpiginous eruption characteristic of larva migrans. The lesion

started on the sole of the left foot, running over the outer side and onto the dorsum of the foot. From the terminal portion of the lesion an organism had been removed. This was identified as an ant by Dr. W. E. Dove, and by Mr. Rohner of the Bureau of Entomology, Washington, as *Solenopsis geminata Fabr., var. Fufa Jerd.* The specimen was not removed from the slide, and they are somewhat doubtful of the varietal name. The slide was shown under the microscope.

SPOROTRICHOSIS. REPORT OF CASE BY DR. SCHAMBERG.

The patient was shown at the December meeting, with a diagnosis of sporotrichosis. He did not do well under treatment with iodine ointment, but tincture of iodine painted over the leg, with potassium iodide internally and roentgen-ray therapy caused some involution. He developed an iodide eruption, but nevertheless, the iodides were used. A rat which was inoculated died, and showed characteristic involvement of the peritoneum and diaphragm. DeBeurmann and Gougerot claimed that the sporotrichium was only feebly pathogenic, the monkey, guinea-pig and cat being more susceptible than the rat. The patient is clinically almost well—most of such patients do well under treatment with iodides, only three of 148 reported cases having been fatal in this country. The mortality is greater in France, however.

A CASE FOR DIAGNOSIS. Presented by DR. SCHAMBERG.

Mrs. H. L. W., aged 50, was first seen in April, 1926, when she presented circinate linear lesions on the chest and neck. The lesions were inflammatory and discrete, some of them being the size of a half dollar. The condition appeared to be a beginning pityriasis rosea. The lesions did not increase in number, however, and disappeared rapidly following the use of the roentgen ray locally. In November the patient returned, complaining of soreness at the angles of the mouth. Examination revealed nothing more than a slight redness at these locations. Two weeks later the upper and lower eyelids, the neck and the chest showed inflammatory circumscribed patches, varying in size from that of a pea to that of a half dollar, slightly oval, with a scant scaling. The condition has spread slowly and has been uninfluenced by roentgen-ray therapy or local soothing applications.

DISCUSSION

DR. BROWN: I think that the use of hair dye probably had much to do with the persistence of the eruption.

DR. CORSON: The condition is not typical seborrheic dermatitis, but one or two of the spots suggest that diagnosis.

DR. SCHAMBERG: This is the first time I have observed that the patient has been tinting her hair. She now admits that she has been using a dye for three years, though she has not always patronized the same establishment. There are no lesions on the scalp and none on the forehead. The lesions were markedly inflammatory, and the diagnosis suggested is likely in view of the bizarre character of the eruption, it might have its origin in the aniline dyestuff absorbed into the skin. The eruption is most unusual.

CARROLL S. WRIGHT, M.D., Secretary.

CHICAGO DERMATOLOGICAL SOCIETY

Annual Meeting, Jan. 12, 1927

PAUL A. O'LEARY, M.D., *Presiding*

LYMPHANGIOMA OF HAND. Presented by DR. OLIVER and DR. FINNERUD.

The patient was a girl, aged 1 year and six months. The mother said that the largest of the swellings was present at birth, and that the others appeared subsequently. There was a soft, rather lax, swelling 1½ inches (3.81 cm.) in diameter over the back of the right hand. The distal border was at the base of the first and second fingers, extending slightly between them. A projection extended up the proximal phalanx along the thumb side, half way to the first interphalangeal joint. The mass transmitted light very well and showed no trabeculae. Just lateral to this mass, lying at the base of the third finger, was a lobular mass about one-half the size of the first one, decidedly firmer and transmitting light less distinctly. Neither of the two masses was adherent to the surrounding tissue. Over the proximal phalanx of the third finger was a soft, indefinite swelling. The middle phalanx of the fourth and middle fingers, on their dorsal surfaces, were enlarged by small masses which were much firmer and less freely movable. The Wassermann reaction was negative.

HEMANGIOMATOSIS. Presented by DR. OLIVER and DR. FINNERUD.

A girl, aged 10 months, had a cutaneous disorder which had been present since birth. The child was born two or three weeks prematurely, and at birth presented a nonpulsating enlargement of the left side of the neck about the size of the child's head. On the face, trunk and extremities were several dozen bluish-red, slightly elevated, soft nodules. Since birth the child had gained steadily in weight and strength in spite of a bronchial disorder and gonorrheal vaginitis, neither of which could be demonstrated as present at this time. She had also had a rather severe attack of measles. The child had one sister, 2 years of age, who was well nourished, but who had had convulsions frequently since she was 6 months of age. The mother had had no other pregnancies. Numerous lesions had disappeared, although numerous new ones had appeared and were still appearing. Repeated aspirations of the large tumor of the neck had in each instance shown what apparently was solely blood.

Examination showed a somewhat undernourished child with two or three hundred dark red to bluish-red, slightly elevated tumors varying in size from that of a pinhead to that of a pea. Some of these were much more elevated than others and could be pushed into the skin as a hernia sac through its ring, requiring several seconds for the collapsed tissue to regain its content. The tumor of the neck had greatly decreased in size since the last two aspirations. Histologic sections from the small tumors showed a cavernous hemangioma, composed, in the instance of each lesion examined, of a single sac. Sections were presented.

NEVUS FLAMMEUS. Presented by DR. STILLIANS.

An Italian, aged 27, presented a purplish discoloration of the side of the face which had been present since birth. There was an extensive vascular lesion which involved the entire left half of the face and partially involved the mucous membrane of the cheek on the same side. The lesion was the color of port wine

except in certain areas which were deep bluish. The surface was smooth excepting for a few vascular papules the size of a pea and smaller which were irregularly distributed over it.

The patient was under treatment with carbon dioxide snow.

DISCUSSION

DR. STILLIANS: I showed the patient to demonstrate the effect of treatment. I have used short applications of carbon dioxide snow.

NEVUS. Presented by DR. FINK.

A man, aged 30, presented lesions some of which had been present since birth, but which had become more numerous in recent years. Generally distributed over the chest and back were round and oval, reddish-brown macules, varying in size from that of a pinhead to that of a dime. They were pigmented, erythematous and nonelevated. The centers of some of the lesions had a velvety, nevoid texture. Biopsy proved them to be nevi.

DISCUSSION

DR. RAVOGLI: Although the Wassermann reaction is negative, I would not hesitate to consider the condition a form of syphilis, and I think the man should have antisyphilitic therapy.

DR. ORMSBY: The patient was shown because the condition seemed to be unusual. Some thought the lesions simulated urticaria pigmentosa. The lesions have been present since birth but have been increasing in number recently. Some of them are brown, and others present a deeper shade in the center; it is an unusual picture. All who saw the histologic sections agreed that the lesions are nevi.

DR. ZWICK: In designating the condition of Dr. Fink's patient as "nevus," one does not necessarily exclude the diagnosis of Recklinghausen's disease, as this condition may be classified among the embryonal anomalies of growth. The pigmentation in this patient is such as to lead one to consider a tentative clinical diagnosis of Recklinghausen's disease, but to clinch it, a biopsy is desirable. Of course, it is only a "cas fruste," an incomplete form. The failure of the pigmented areas to respond to irritation with the formation of "wheals" rules out a diagnosis of urticaria pigmentosa.

DR. SWEITZER: I thought it was a case of Recklinghausen's disease without the tumors, and I think these diagnoses could be reconciled.

NEVUS VERRUCOSUS (LINEARIS). Presented by DR. FINNERUD.

A boy, aged 3, had an eruption on the anterior and dorsal sides of the trunk, which had been present since he was 4 months of age. It was devoid of subjective symptoms. Most of the lesions were of the midline in front, extending from the pubes to the neck. There were also scattered patches on the chest and in the axillae, as well as a linear area along the spine and scattered lesions of the back elsewhere.

NEVUS UNIUS LATERALIS (VERRUCOSUS). Presented by DR. OLIVER and DR. FINNERUD.

A girl, aged 5, had an eruption of the left lower extremity, devoid of subjective symptoms, which had been present since she was about 6 months of age.

The lesions, which extended from the foot to the hip, were not increasing in size or number.

Examination revealed lines and patches of light brown, flat, but slightly verrucous lesions about the size of a match head.

TUBERCULOSIS OF THE TONGUE. Presented by DR. OLIVER and DR. FINNERUD.

A man, aged 42, with active pulmonary tuberculosis of more than a year's duration, had two ulcers of the tongue which had been present for ten months. Examination of the sputum showed tubercle bacilli in abundance. Examination of the tongue showed an oval ulcer of the tip and a wedge-shaped one of the left side, each about 2 cm. in the greatest dimension and with a slightly papillomatous margin and base.

TUBERCULOSIS, ULCERATIVE, OF THE LIPS. Presented by DR. FINK.

A man, aged 58, presented a condition of three years' duration, with a history of gradual onset. The mucosa of both the upper and lower lip was ulcerated, sclerotic and thickened, with fissuring at the angles of the mouth. Much of the sclerosis was probably due to the cauterization of superficial ulcers in the course of treatment. There was a well defined erythematous patch of dermatitis surrounding the mouth and extending half way over the cheeks, and coinciding with a cutaneous and subcutaneous edema. The submental glands were markedly enlarged. There was no history of tuberculosis in the family, but the lungs showed changes in the breath sounds of the left upper lobes. A section of the tissue revealed characteristic tuberculous changes, tubercle bacilli being demonstrable in 25 per cent of the giant cells.

DISCUSSION

DR. ZWICK: Dr. Claassen and I remarked about the presence of an edematous condition associated with a bright red erythema of the face, in the region of the lips and chin. The somewhat indurated edema is probably due to a lymphatic (Virchow) and venous (Cruveillier) stasis. It would be interesting to hear from Dr. Fink whether the erythema has been present for some time or whether it is a result of recent (ultraviolet [?]) treatment.

DR. FINK: The peculiar dermatitis coincides exactly with an underlying edema. I thought that the man had a roentgen-ray dermatitis when I first saw him, but the condition has not changed in six or eight months. The fact that the edema exactly underlies the erythema and dermatitis made me feel that the whole process was a lymphatic obstructive disturbance as the patient also had a number of submental glands involved.

DR. RAVOGLI: I think the case very instructive because the condition can be considered a form of erythema or a form of lupus erythematosus. It sometimes is really an expression of tuberculosis; at times it comes from the secretions of the nose or gums; in other cases the lupus is the result of tuberculosis, either by the presence of the tubercle bacilli or from the secretions which come from the lips. These secretions entering into the blood vessels are liable to produce a superficial erythema which could be considered as of a toxic nature.

DR. FOERSTER: I think the entire condition could be explained as a lymph stasis, which is not uncommon about the nose and mouth, and is more often seen in connection with infections around and in the nares.

DR. ORMSBY: Because many of you saw this patient a year ago but may have forgotten, I should like to call attention to a few things from the educa-

tional side of the case. A year ago the lip was much larger, was deeply ulcerated and infiltrated, as hard as a carcinoma, and those who saw him were divided in their opinion between a diagnosis of syphilis, tuberculosis and carcinoma. The case presented a confusing clinical picture. Dr. Fink found tubercle bacilli, and under treatment the condition has greatly improved. I think Dr. Foerster's remarks regarding stasis are correct, and it is interesting to see a patient with such a marked case of tuberculosis respond so well to treatment. None of us have seen tubercle bacilli more numerous in sections than were found in this instance.

PIGMENTATION, UNUSUAL TYPE. Presented by DR. STILLIANS.

A negro, aged 36, a native of Mississippi, first noticed pigmentation in the three horizontal lines of the forehead in January, 1926. Three weeks later he noticed spots under the eyes, and during the next two months the lesions spread over the entire face, and during the following month over the entire body. The face showed diffuse generalized, bluish hyperpigmentation, except around the eyes where the color was brownish-red, and the lesions occurred in slightly elevated, thickened striae. The rest of the skin was smooth and nonscaly. On the neck and trunk the pigmentation was seen in diffusely disseminated macules. The case was being investigated from the point of view of suprarenal involvement.

DISCUSSION

DR. RAVOGLI: I would consider this a form of argyria. The man had taken some medicine before the condition appeared, and I think that this has something to do with its appearance. I have seen some cases of argyrosis in which the skin was deeply colored from the particles of silver deposited in the tissues.

DR. GANS: The case reminded me of those seen in the war which resembled lichen ruber, but which have been called by Hoffman dermatitis lichenoides toxica. I have had no personal experience with this entity, but would be interested to hear the opinions of others regarding it.

DR. ZWICK: Possibly one should also consider a condition of depigmentation, because of the areas which impressed several of us as being comparatively achromic. It would be interesting to perform a biopsy and apply the dioxyphenylalanin test to determine the presence or absence of the pigmentogenetic enzyme (oxydase), without which, according to Bloch, no formation of melanin occurs.

NOTE.—Since the meeting, a history has been obtained of long-continued use of argyrol as eye drops. Histologic examination of the skin shows a great amount of pigment in large clumps in the upper dermis. The character of this has not yet been determined.

LENTIGO, GENERALIZED (?). Presented by DR. OLIVER and DR. FINNERUD.

A girl, aged 9, was first presented before the Society on Oct. 20, 1926, and the case is recorded in the ARCHIVES OF DERMATOLOGY AND SYPHYLOLOGY for March, 1927, page 373. A biopsy performed since that time showed no pathologic change other than heavy pigmentation limited to the basal cell layer. The pigment was iron-free and apparently melanin.

DISCUSSION

DR. PUSEY: I looked at the patient and tried to make a diagnosis of urticaria pigmentosa. Dr. Mitchell rubbed the lesion until I thought that if the child did

not have a wheal she would have an abrasion, but she did not get either. I am willing to except the diagnosis of lentigo, especially as the specimen shows melanin.

DR. ORMSBY: I think this type of lentigo is well recognized.

DR. JAMIESON: The case presented what was to me a peculiar condition. On the lower extremities the lesions seemed to be pigmented, while on the body there seemed to be areas of depigmentation, which raises the question of whether two such conditions could be present in the same person.

DR. ZWICK: At first sight I believed that leukoderma was among the diagnostic possibilities. If the case is a lentigo, does it belong to the malignant type?

DR. FINNERUD: We have gone into the history thoroughly and have worked the case up as well as we can. So far as we can tell, there has been no change in the size of the areas of depigmentation or of the large diffuse areas of hyperpigmentation of the arms and legs since the child had been under observation. So far as the disorders due to the glands of internal secretion are concerned, the only thing we could measure was the basal metabolic rate, which was normal, but unless this is a case of generalized lentigo, as described by Knowles, I think it must be some anomaly due to endocrine disturbance.

DR. WILE: My mind runs something like Dr. Zwick's. I would like to feel that there might be some explanation for this extraordinary hyperpigmentation, but as I saw the patient in October, it occurred to me that the condition might be a mild type of xeroderma pigmentosa. To be sure, there are no evidences of telangiectasis or hyperkeratosis which one usually associates with that condition, but there is a marked absence of pigment and a more or less frantic effort to cover the pigment defect up by the lentiginous spots. I think there are all grades of these defects with compensatory tendency to produce pigment, and that this case might be a mild one of this sort. I was impressed not so much by the pigment as by the extreme pallor of the child.

DR. GOECKERMANN: My first impression was of xeroderma pigmentosa, but on further reconsideration I wondered why there should be so much pigmentation on the portions of the body covered by the clothing. I would be inclined to favor more the group we call Recklinghausen's disease, except that this child has not yet developed the tumor masses. I think the case should be watched from that standpoint.

DR. ZWICK: Perhaps if Dr. Finnerud would consider my suggestion of giving his patient an irradiation with ultraviolet light he might find it to be of assistance, not as a therapeutic measure but as a biologic test, to observe the chromogenetic function of the skin. Hanawa's publication from Jadassohn's clinic is of interest in this connection.

LICHEN SCROFULOSORUM. Presented by DR. STILLIANS.

A German, aged 50, complained of frequent coughs and colds, and in November, 1926, had a slight burning and itching sensation on the arms and body, which was followed in a few days by an eruption. When presented, there were on the trunk and arms grouped, flattened and rounded, reddish to yellowish-brown papules, of millet-seed size, some of which were umbilicated. The Wassermann reaction was negative, as was a roentgenogram of the chest, but the Pirquet reaction was strongly positive.

DISCUSSION

DR. GANS: If we accept the diagnosis lichen scrofulosorum, we infer the presence of a tuberculous lesion and particularly is this true in such a case as this when, as far as I can judge, we have not a true lichen scrofulosorum. On the other hand, we are accustomed to see lichen scrofulosorum develop in the earlier years, but in all such cases we find spots of lichen scrofulosorum which look different from those presented by this patient. The lesions do not show specific microscopic changes. I believe we must say the case suggests lichen scrofulosorum, but we must ask what produces it. I have not been able to find any other lesion in the skin which would allow me to call the reaction a tuberculous one, and as long as I do not find this, I think it would not be right to call it a tuberculous lesion.

LEUKEMIA, CONGENITAL, HEREDITARY. Presented by DR. OLIVER and DR. FINNERUD.

The patients, supposedly full-blooded negroes, a mother and her two daughters, were first presented before the Society on Oct. 20, 1926, and the cases are recorded in the ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY for March, 1927, page 363.

DISCUSSION

DR. MICHELSON: It is interesting to know that anthropologists have worked out the heredity of this disorder in piebald horses.

DERMATITIS (ARSPHENAMINE). Presented by DR. HEDGE.

An Irishman, aged 59, a porter, had been under treatment for syphilis since March, 1926. He had received 3.75 Gm. of neoarsphenamine, about ninety mercurial inunctions and considerable potassium iodide by mouth. On No. 8, 1926, he was nauseated and vomited once after an injection. On November 15, he had a slight reaction and vomited. The treatment was changed to potassium bismuth tartarte, and on November 19, there were irregular patches of erythema on the forearms, scalp and chest, which were slightly scaly and somewhat pruritic. The patient was put on sodium thiosulphate, and this treatment had been continued intravenously and by mouth since November 19. The patches had faded materially but were still visible. The Wassermann reaction remained positive.

ERYTHEMA INDURATUM. Presented by DR. HEDGE.

A woman, aged 27, said that her condition began about nine years before presentation as indurated patches on the legs, which later broke down and formed ulcers. Some of these lesions had healed, leaving thick, bound down scars. Mercurial and arsphenamine therapy had no effect on the lesions.

DISCUSSION

DR. ROSENBERG: I think the sections demonstrated a tuberculous structure. The patient has had about fifteen injections of neoarsphenamine and ten or twelve injections of mercurochrome-220 soluble, without any effect on the lesions. The ulcerations are of nine years' duration.

DR. RAVOGLI: The case did not give me the impression that it was an erythema induratum but a simple case of ulcus cruris, perhaps of vasomotor origin or from a gummatous condition. I have found that the tibiae are thick and have been exposed to various injuries.

DR. GANS: I would be interested to hear what Dr. Rosenberg means by "tuberculous structure."

DR. ROSENBERG: Giant cells, particularly of the Langerhans type. We could not classify the eruption as a syphilitic lesion, and it was much more like a tuberculous lesion than any other kind.

DR. GANS: I have shown some of you microscopic changes in lesions which are difficult to differentiate. If I had seen this case some days ago, I would have thought it tuberculous. I do not believe it is advisable for us to talk about the so-called tuberculous granuloma, and I think we can say nothing else but that it is a reaction in the skin. I do not like to say that it is even a tuberculous lesion in the skin, or that it is syphilis or blastomycosis. A histologic picture to tell the etiology is necessary before a decision can be made.

DR. ZWICK: It has been shown that any foreign body may produce a so-called tuberculoid structure not to be differentiated from the true tuberculoma except for the absence of tubercle bacilli. Inoculations of guinea-pigs, if positive, may solve the diagnostic problem.

DR. ROSENBERG: I must agree with Dr. Gans that it is difficult to make a diagnosis of a tuberculous lesion from a section, but I think that with the clinical and other observations we are justified in doing so. We have studied this particular case and sections for some time and are under the impression that we are dealing with a tuberculous process. There were fibroblasts in the sections, a number of giant cells of the Langerhans type and a marked round cell infiltration.

LUPUS ERYTHEMATOSUS DISSEMINATUS. Presented by DR. STILLIANS.

An American housewife, aged 30, while working as a cashier in a butcher shop two years before presentation developed reddish-purple spots on the right cheek, with veins running through them. The spots healed, leaving blotches. She had now been married four months and was three months pregnant. After the beginning of pregnancy, an eruption appeared on the arms, face, ears, and hands, in the order named, the ear lesions clearing up. There was marked itching at times. The patient felt well otherwise except for pains in the ankles and fingers, which had been present for two winters, but which had become more pronounced since the eruption began. During the past month the hair had been falling.

On the right cheek there were three ill defined patches about 0.5 cm. in diameter, one with a central scar, another a macule with peripheral telangiectasis, the third pale pink and slightly scaly. These represented the relics of the first lesions. In front of the left ear there was a heart-shaped scar caused by a burn, and between that and the ear were several small, white scars, the cause of which she did not know. On the forehead, on the left side of the nose, on either cheek, about the center of each clavicle, on the chin, the external surface of the forearms and right upper arm, on the radial and ulnar sides of the hands and wrists, on the backs of the fingers, between some of the fingers and on either shoulder ill defined, grouped, maculopapules and macules, many of the groups roughly circinate, were seen. On the scalp, the occipital and right parietal regions, and in the median line in front of the vertex were ill defined areas of baldness, with pale, greasy, brownish-yellow adherent scales covering the skin. In the occipital patches of baldness were pale, brownish-red macules, scaly and tending to a circular grouping. On the front of the left side of the neck was a sharply defined red macule, about 0.7 cm. in diameter, over which the skin wrinkled when pressed together. About many of the finger-nails there was paronychia, and the nails were brittle.

The Wassermann reaction and the precipitin reaction were negative. The urine showed no albumin or sugar. The blood showed 4,500,000 red cells, 10,800 white cells and a hemoglobin content of 75 per cent. The differential count was: 75 per cent polymorphonuclear neutrophils; 14 per cent lymphocytes and 11 per cent large mononuclears. A roentgenogram of the chest showed slight, diffuse mottling like anthracosis. The heart was enlarged to the left with a mitral bulge. The blood pressure was systolic 120 and diastolic 80.

LUPUS ERYTHEMATOSUS DISSEMINATUS (SUBACUTE TYPE). Presented by DR. ORMSBY.

This patient was demonstrated before this Society at the October, 1925, meeting and at the October, 1926, meeting, and the case is recorded in ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY (**13**:554, 1926; **15**:371, 1927).

DISCUSSION

DR. STILLIANS: The dissemination of this eruption was coincident with pregnancy, and I had never seen this before. There are small lesions in the scalp, surrounded by large patches of baldness. I would be grateful if some of the more experienced men would give me an opinion on the prognosis of my case, particularly as to whether the pregnancy should be interrupted.

DR. GOECKERMAN: I have interested myself in lupus erythematosus, particularly the disseminated type of the disease, and have had the opportunity to follow the majority of the cases for some time. Whether fortunately or unfortunately, we see a great many of the disseminated form. I have had no experience with the behavior of lupus erythematosus in pregnancy, but I have been impressed with the fatalness of the disease. As we have watched case after case, we have come to believe that the life expectancy from the time of dissemination ranges from two to three years. This includes many of the chronic disseminated as well as the acute types. We must not be misled by the patient's general good condition and apparent absence of toxemia into giving a favorable prognosis in this disease.

DR. ORMSBY: I wish to mention my case in connection with that of Dr. Stillians' for the reason that it is of the same type. The patient was shown at the last annual meeting, and again at the October meeting, and our impression was that it was a case of lupus erythematosus disseminatus of the subacute type. This form is not accompanied by constitutional symptoms, and these patients commonly recover. The type Dr. Goeckerman has described accurately is that which Kaposi described as erysipelas perstans faciei. Those patients have a grave constitutional disorder and frequently die within a short time. In some I have seen several exacerbations and remissions before the fatal termination.

At times this acute form begins as discoid lupus erythematosus and then suddenly develops a generalized eruption, occasionally resembling multiform erythema with the subsequent course of the grave type. There is a type, however, of disseminated lupus erythematosus in which the lesions are subacute and unassociated with constitutional symptoms; those patients recover. The patient I am speaking of was treated for four or five months with 1 grain (0.06 Gm.) of iodoform three times daily and has made an apparently complete recovery. I have seen the lesions in several of these cases clear up and remain well.

DR. SENEAR: Referring to Dr. Stillians' question about the effect of pregnancy in these cases, several years ago, with Dr. Pusey, I saw a patient with

folliclis. She had had two pregnancies before we saw her and during each one had developed numerous lesions. When we saw her, she had a fresh attack.

DR. GANS: In Germany we have several opinions about the interruption of pregnancy in tuberculosis. One group say that in pulmonary tuberculosis pregnancy should be interrupted, while others say this should not be done because pregnancy needs the highest possible functioning of the organism, and if the woman has a possibility of defending herself against tuberculosis, she will get better during pregnancy. I have had no experience, but it is interesting that those who say we should not interrupt pregnancy claim that when it is interrupted there is no change in the tuberculous process and the patients die. In one type of tuberculosis the patient will die no matter what measures are taken, while in another type they live for a long time. It is difficult to decide, but in this particular instance I think the pregnancy should be interrupted because patients do not die of lupus erythematosus unless they develop what appears to be a septicemia. Some of them develop pneumonia, and this seems to show that they have no resistance against pyogenic infections. I think the pregnancy should be interrupted as early as possible.

A CASE FOR DIAGNOSIS. Presented by DR. ORMSBY.

This patient was presented at the December, 1926, meeting of the Society and the case is recorded in the ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY in the proceedings of that meeting.

The sections demonstrated with the patient were described by Dr. Finnerud as follows: "There are irregularly alternating areas of thinning and thickening of the rete, and in many places the papillae are obliterated. Hyperkeratosis is a marked feature, and there is increased pigment content of the stratum germinativum chiefly. In places the cells of the basal layer are very pale staining, somewhat acidophilic, and appear almost continuous with those of the corium. The adjacent cells of this layer in these areas are widely separated one from the other by clear spaces. There is a diffuse, sharply defined, small round cell infiltrate of the papillary corium and here the vessels are dilated. Elsewhere there is mild perivascular cellular infiltration. Here and there in the papillary portion of the corium are large clear spaces which somewhat resemble artefacts, but which definitely are not artefacts. Microchemical study (made by Dr. O. F. Montgomery) shows arsenic granules throughout the skin."

DISCUSSION

DR. RAVOGLI: It seems to me that this case is one of the Kling-Miller type of erythroderma psoriasiforme. The eruption consists of small papules agminated together and covered with desquamation. I did not ask whether the patient was annoyed by an itching sensation.

DR. SWEITZER: I was much interested in this particular patient because of the telangiectasis over a large part of the body. I at first thought of the possibility of poikiloderma, but on examining the palms saw what I thought was typical arsenical keratosis; so I made a guess that the etiology was due to arsenic. I am not able to explain the telangiectasis in association with this condition.

DR. COLE: This patient has an extensive, diffuse process, which I do not think could be explained as poikiloderma, nor do I think the entire process is due to arsenic. I believe it is a parakeratosis variegata with arsenical changes due to the arsenic used in the treatment of the condition.

DR. GANS: The histologic section shows a process which I do not recall having seen other than in lichen ruber and arsenical dermatitis. The lesions have the sharp border which is found in the upper layer of the cutis. There is a low infiltration, not so dense, however, as we are accustomed to see in lichen ruber, and therefore I do not think that what we see in the section permits us to say that it is an arsenical dermatitis. In the clinical picture, however, I could not find the nodules, and I wonder whether there was not another condition primarily and whether the present condition is not a lichenoid type of parapsoriasis variegata.

DR. FOERSTER: The picture of telangiectasis so sharply limited to the upper part of the chest and shoulder tips at first glance would make one think of poikiloderma, but absence of brownish pigmentation at the margins and the extensive appearance of the telangiectasis on the legs, also without pigmentation, I think rules out poikiloderma. The explanation given by Dr. Cole I believe is the one that most closely fits the case.

DR. O'LEARY: I examined the pathologic slides this morning in Dr. Ormsby's office and was particularly interested in those stained for arsenic in the tissue as recently described by Osborne. The sections showed pronounced deposits, more marked than I have seen heretofore. To those of us who have faith in the test and believe that the deposits represent arsenic, the section verifies the belief that arsenic was a factor in producing the dermatosis. The clinical picture was, however, more typical of parakeratosis variegata than an arsenical dermatitis.

DR. ORMSBY: From the lesions on the back of the patient and those on the abdomen it is evident that there is an underlying cutaneous disorder on which the arsenical keratoses and pigmentation have been implanted. The sections which were made by Dr. Montgomery show, by the method described by Osborne, that arsenic is present in the tissues, but that the lesions are not those of arsenic alone. I was in England when the arsenic epidemic occurred some years ago and saw several patients who presented a similar picture. The abdomen and the palms and soles were usually most markedly affected. We saw many patients with various lesions, but the majority presented a dirty, unwashed appearance with a thickened skin. In this instance the major portion of the cutaneous changes are arsenical and the underlying condition may have been parapsoriasis.

A CASE FOR DIAGNOSIS. Presented by DR. ORMSBY.

A man, aged 37, had a disorder which had been present for thirteen years. There was an eruption on the chest, chiefly along the infrapectoral regions and down the center to near the umbilicus; on the back over the scapulae and along the spine from the scapular to the lumbar regions. The lesions were scaling and varied in size from that of a pea to that of a fingernail; some were erythematous and slightly infiltrated. Most of them were light brown, and some were shiny. Some of the lesions appeared smooth, and atrophic. When grouped in patches, a reticular configuration was present. The disorder had been considered by some and treated as tinea versicolor. A microscopic examination of the scales revealed no fungus. Sections of the skin exhibited were described by Dr. Finnerud as follows: "All sections show marked diffuse hyperkeratosis, marked follicular keratosis, and slight acanthosis. The cells of the lower portion of the rete mucosum are, in a few instances filled with vacuolated cytoplasm and heavily staining swollen nuclei, though no true 'round bodies' are present. There are degenerated areas in the centers of the follicular keratotic plugs which have become basophilic, masses resembling calcareous deposit. In the corium there is

marked perifollicular small round cell infiltration and perifollicular fibrosis. The vessels of the papillary portion are dilated, and there is lymphocytic infiltration about them."

DISCUSSION

DR. SWEITZER: I saw this patient but was not so keen in my diagnosis. I thought the condition was probably parapsoriasis, but there was also a possibility of a psorospermosis.

DR. SENEAR: I agree with Dr. Sweitzer that it is probably a parapsoriasis. The diagnosis of Darier's disease was suggested, but I have seen so little of that that I could not form any opinion regarding this being an atypical case.

DR. GANS: From the clinical picture it might be parapsoriasis, but we do not know anything about the conditions that lead to parapsoriasis, and therefore I think the diagnosis should be made with a question mark because it is an unusual type of parapsoriasis.

DR. FOERSTER: I saw this patient once a year ago, but I did not see him today. A year ago I made a diagnosis of parapsoriasis. In the course of the year, changes may have occurred which may have made the case resemble Darier's disease, but that condition was not present a year ago.

DR. O'LEARY: I believe the diagnosis rests between parapsoriasis and an incipient keratosis follicularis with a shade in favor of the latter. There is not sufficient evidence to substantiate a conclusive diagnosis at present, but I venture that further observation will warrant a diagnosis of Darier's disease.

DR. ORMSBY: I agree with Dr. O'Leary.

SARCOID. Presented by DR. STILLIANS.

A negress, aged 26, six months pregnant, was first presented before the Society on Oct. 20, 1926, and the case is recorded in the ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY for March, 1927, page 378.

The entire picture had progressed, and further roentgenographic study by Dr. Blaine gave the following observations: "Upper lungs clear. Lower lung fields the site of extensive increased tissue density which was most marked in the proximal portions. Tendency to mass formation. Interlobar accumulation of small amount of fluid between the upper and lower lobes on right. Considerable pleural thickening over the lower left lung. In the mediastinum a mass shadow extending beyond the heart edge at the pulmonary bow. Aortic arch further to right than normal, but no definite aortic changes seen. Heart normal. Fibrous connective tissue development from within out — unusual for tuberculosis."

MADUROMYCOSIS (DUE TO *Aspergillus nidulans*). Presented by DR. O. H. FOERSTER and DR. K. L. PUESTOW. (From the Department of Clinical Medicine and the Department of Dermatology of the University of Wisconsin, State of Wisconsin General Hospital.)

A woman student, aged 20, said that the disorder now present was first observed in February, 1923, on the nose as a "sore" which healed after lancing. In March, 1923, a deep abscess developed in the right cheek, which healed after incision and packing with iodoform gauze. About four weeks later another abscess developed and burrowed in the cheek until excised surgicaly in October, 1923. In November, 1923, a similar inflammatory nodule appeared behind the right ear and developed as an abscess with extensive burrowing. Following this,

lesions developed in the left cheek and on the right forearm and hand, which healed in several months after incision and packing. In November, 1924, two furuncle-like lesions containing a thick, blackish pus appeared behind the right ear. In January, 1925, black grains were first observed, and the diagnosis of mycetoma was made. Other lesions appeared about the ear and on the right forearm, developed as extensive sinuses, and proved resistant to treatment.

Aspergillus nidulans was grown from three different grains in pure culture, and was identified as such by Dr. Charles Thom. The best growths were obtained on malt extract agar, but they were also obtained on potato and potato agar. Attempts to reproduce the disease in guinea-pigs had been unsuccessful.

DISCUSSION

DR. WILE: I do not think any one could possibly discuss this case from the standpoint of anything he had seen before, but I think it shows the need of careful observation in peculiar long-standing granulomatous conditions, particularly those which resemble syphilis or tuberculosis. Certainly no one could have the slightest reason for suspecting that the organism found here might be present, and I think the Society is extremely indebted to Dr. Foerster and Dr. Puestow for presenting a case so well worked out. This illustrates the need for careful bacteriologic examination in cases in which we can find no etiologic factor, and which resemble other forms of granulomas.

DR. COLE: I would like to corroborate all Dr. Wile has said. I think none of us would feel like making a diagnosis of maduromycosis from the clinical examination, and it is only by careful microscopic and bacteriologic study that we can come to any conclusion. We do have the peculiar type of madura foot in which we can make the clinical diagnosis without knowing the organism. Dr. Gammel in my service has made a careful study, and has shown, I think, that there is no one organism that causes maduromycosis. A great many organisms have been noted as the etiologic factor in the causation of this disease.

DR. ZWICK: This is surely one of the most interesting cases that has been shown on this occasion. Siebenmann, the Swiss otologist, has pointed out that aspergillomycosis of the ear is not uncommon, and I wonder if that is not where this infection started. Recently I was able to show *Aspergillus* in the sputum of a patient who has had skin lesions for many years. I performed a skin test on that patient with *Aspergillus* and obtained a positive result. I would like to know whether Dr. Foerster tried skin tests in his case.

DR. FOERSTER: No cutaneous tests have been made. *Aspergilli* occur frequently and are disseminated widely in nature. Aspergillosis of the tongue is rare. I saw such a case about a year ago, and aspergillosis of the tonsils and of the ear also occur. This patient has had an otitis, but this occurred only recently. There is no history of otitis preceding the original lesion, which appeared on the side of the nose about four years before presentation. As Dr. Cole said, the condition of mycetoma can be brought about by a variety of fungi, and it has recently been found that the aspergillus can be the causative agent. The first reported case of *Aspergillus* infection in man occurred as a typical madura foot in a woman of Tunisia. The present case is the second one due to *Aspergillus nidulans*. The black grains have been recovered, whereas in the previous case white grains were found. The patient is in the care of Dr. Puestow, who made the examination for fungi on my suggestion, and his careful microscopic and cultural work disclosed the character of the infection.

DR. K. L. PUESTOW: Relative to Dr. Cole's statement, not only will various fungi cause this disease, but there apparently is no relationship between the grains of different colors. As Dr. Foerster pointed out, the case reported in 1906 was due to *Aspergillus nidulans* with white grains, whereas this case has black grains alone, which could not be reproduced in guinea-pigs. Examination of the exudate which is formed in the course of twenty-four hours will reveal sporelike bodies which are not unlike those found in blastomycosis or other similar conditions. It is only through further cultural studies that the nature of the etiologic fungus can be determined. It might be questioned as to whether or not *Aspergillus nidulans* is the cause of the black grains. The answer to that is that it has been shown that this is the only mold that has occurred, and it has occurred repeatedly.

LUPUS ERYTHEMATOSUS DISCOIDES (RECURRENT). Presented by DR. FINNERUD.

A man, aged 41, had an eruption of the cheeks of several months' duration. The same eruption, but less marked, had been present during the last three preceding winters and had cleared each spring, leaving no trace. The patient had never had lesions elsewhere.

Examination showed several well defined erythematous scaling plaques of each cheek. Although infiltration was marked, there was no definite evidence of central atrophy or keratotic marginal plugs. On the right buccal mucous membrane were two small leukoplakia-like thickenings, possibly related to the facial eruption, but not definitely lupus erythematosus.

LUPUS ERYTHEMATOSUS DISCOIDES. Presented by DR. ZEISLER.

A boy, aged 7, presented a disorder which was said to have begun at the age of 4, apparently following a mosquito bite. The condition was originally diagnosed as lupus vulgaris and the patient was treated with the roentgen ray. When presented, the condition showed remission in the center of the lesion and progression at the lower border. Treatment had consisted of compression with the Kromayer lens and calamine lotion.

STOMATITIS. Presented by DR. OLIVER and DR. FINNERUD.

A girl, aged 12, had entered the Children's Memorial Hospital three weeks previously with a severe stomatitis which developed following injections of potassium bismuth tartrate. There was a definite black line on the gums and a grayish-black necrotic membrane covering the soft palate and extending on to the tongue. The child was apparently very ill. She had received 0.91 Gm. of the drug in twelve injections during a period of sixty days. There had been marked improvement following injections of sodium thiosulphate.

DISCUSSION

DR. MITCHELL: I have been giving many injections of bismuth recently and have found it a little disconcerting to have the patients see their dentists without first consulting me. In half a dozen cases recently these patients have gone to their dentists for the usual cleaning of their teeth, and their dentists have told them that if they did not know them so well they would suspect that they had been taking mercury. Now I warn my patients not to go to their dentists until I advise them to do so.

DR. OLIVER: In the case seen today the condition did not show nearly so much as it did two weeks ago, but we presented the patient merely to demon-

strate that bismuth is sometimes a toxic drug. This patient was being handled in the syphilitic service at the Children's Hospital.

DR. FOERSTER: Some years ago when the use of Beck's paste was more in vogue than it is today we used to see instances of a scurvy-like condition of the oral mucosa, gums, and tongue, which later developed into a dark plum-colored pigmentation of the buccal mucosa and floor of the mouth and a typical slatey pigmentation of the gingival borders. This served to confuse those who did not realize that bismuth intoxication manifests itself at times in the mouth.

SARCOMA (KAPOSI). Presented by DR. HEDGE.

A boy, aged 18, gave a history of having pierced the right foot with a nail nine years previously. At the time of presentation the right foot and lower third of the right leg were swollen, edematous and warmer than normal. About the ankle and on the dorsum of the foot there were many dilated veins and some areas of induration. The skin showed several pigmented areas, the most prominent being just above and below the external malleolus. The lesions varied in color from burnt sienna to a deep purplish-brown. There was some scaliness, which was most marked over the lesion above the external malleolus. The blood Wassermann reaction was negative. The roentgenogram showed no evidence of pathologic change in the foot. Urinalysis was negative for albumin and sugar. The specific gravity was 1.015 with an acid reaction.

DISCUSSION

DR. GANS: The section was that of a Kaposi sarcoma, and it recalled the fact that what we call granuloma pyogenicum develops in a similar way, and histologically resembles Kaposi's sarcoma. There are small areas in which the capillaries have a pronounced proliferation, and it seems to me that the development of these angiomatous conditions is characteristic of Kaposi's disease. Then we must ask whether the conditions that produce granuloma pyogenicum are present in the case shown today. It seems necessary to bear this in mind, because we may find something which is the cause of Kaposi's sarcoma. I believe the question should again be raised as to whether or not Kaposi's sarcoma is a true sarcoma. I believe that Kaposi's sarcoma is an infective disease.

BLASTOMYCOSIS. Presented by DR. STILLIANS.

A negro, aged 48, first noticed a blister on his left heel in the fall of 1924. The lesion persisted, and in the spring of 1925 became worse and involved the entire side of the foot. A budding organism was found in the pus, and biopsy revealed *Blastomyces*. The patient refused treatment, and recently returned with a greatly swollen foot and leg.

The patient was placed on iodide therapy.

BLASTOMYCOSIS. Presented by DR. HEDGE.

A white man, aged 34, was first seen on Aug. 20, 1926, with a lesion on the left side of the cheek, which he said had been present for eleven weeks. It began as a small papule and gradually enlarged until it was 1.5 cm. long and 8 mm. wide. The lesion was verrucous and somewhat fissured. *Blastomyces* was found in the pus. The patient had improved somewhat under iodide therapy, sulpharsphenamine intravenously and intramuscularly and large doses of roentgen-ray treatment, but the most rapid improvement was noted after the use of carbon dioxide snow.

DISCUSSION

DR. HEDGE: My case was presented more because of the patient's response to treatment than because of the rarity of the condition. The lesions have been treated by freezing with carbon dioxide snow, which is not emphasized much in the textbooks and literature. It was applied about nine seconds the first time and twelve the second time, under pressure, and this gave a better result than any former treatment.

LEUKEMID. Presented by DR. ORMSBY.

This patient, aged 49, was shown before this Society on Oct. 20, 1926, and the case is recorded in the ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY for March, 1927, page 372. The duration of the disorder was over two years. Recently the lesions had been of the dermatitis herpetiformis type, and the eruption had been generalized. The observations on the blood at this time showed: leukocytes, 35,000; differential count: polymorphonuclears, 25 per cent; large lymphocytes, 42 per cent, and small lymphocytes, 33 per cent. The activity of the disorder had been controlled for more than a year with arsphenamine therapy given at irregular intervals.

DISCUSSION

DR. COLE: I think I saw this patient at the October meeting. I think there is a group of these cases with a more or less generalized papular eruption; many of the lesions have a small wheal and are capped with a fine vesicle that have a classical picture. The picture is so classical that on a moment's observation the patients give the impression that they may have either a leukemia or a prurigo-like exanthem of Hodgkin's disease.

DERMATITIS REPENS. Presented by DR. MCEWEN.

A girl, aged 15, had a disorder of nine years' duration, which began on the palms as "red spots." The history was indefinite as to whether it began on both hands or only on one hand. The only subjective symptom was mild, occasional itching. At the time of presentation there was bilateral involvement of both hands which extended upward on the forearms slightly above the wrists. Both the palmar and dorsal surfaces of the hands showed multiple old and new, flat, undermined pustules, with older lesions dry and desquamating. There was a generalized keratoderma of the palms, and generalized infiltration and thickening of the dorsum of the hands and fingers. The fingers were semiflexed and partially ankylosed. The nails were absent and the nail beds showed a softened, soggy condition, with involvement similar to that of the other portions of the hand. There was no history of trauma of the palms. The tongue was red, beefy and furrowed, but not sore, and this condition was said to have always been present. She had never had a serious illness, and her general health was good. She had received a great deal of treatment of all sorts, including seven applications of the roentgen ray about a month before.

DISCUSSION

DR. MCEWEN: I intended to present this case as one of acrodermatitis perstans. My reason was that, while it is usually believed that this condition and dermatitis repens are the same, in some of Hallopeau's cases of acrodermatitis perstans the patients had pathologic changes in the mouth. As an abnormal tongue was present in this case, I thought it might be well to call attention to the combination so that those who see similar cases in the future may check up the matter.

DR. FOERSTER: I believe the point Dr. McEwen brings out about the association of dermatitis of Hallopeau and lingua geographica did not apply in this case, because the lesions were the usual ones seen in this particular type of tongue, and as lingua geographica is of much more frequent occurrence than we realize, unless we take special pains to examine the tongue, I think there was nothing more than a coincidental presence rather than a clinical association of the two conditions. The vesiculopustular lesions on the hands in the border of the advancing margin, with the atrophic contracted condition of the palms and the dystrophic condition of the ends of the fingers were all such as would indicate this to be an advanced stage of dermatitis repens.

DR. ORMSBY: Up to two years ago the members of this Society had an exhibition of dermatitis repens at each annual meeting for several years. At times the patient merely presented a deep-seated, dry, scaling condition. Vesicles and vesicopustules constantly recurred, however, from time to time. The patient when last seen still had an active process in spite of careful hospital treatment over a period of several years. The gradual peripheral extension of the vesicular or vesicopustular margin is characteristic. At times in the latter stages the process appears dry most of the time. From our experience dermatitis repens is a serious and rebellious condition. Acrodermatitis perstans, Hallopeau, is similar, but the lesions are more extensive, usually involving portions of the cutaneous surface other than the palms and soles. The course of the two is similar.

DR. MCEWEN: As there seems to be some doubt about some points, I would like to make a personal request of every member in the room that he look up the condition of the tongue described in the Hallopeau cases. I think this investigation would be worth while. While it is possible that a coincidence could occur, I think it rather improbable that a patient should have dermatitis repens and a geographic tongue or a scrotal tongue because we do not see any of these conditions so frequently.

DR. ZWICK: I would suggest the use of applications of acriflavine. I have seen fairly nice results from its use.

DR. AUNER: I have had two cases that clinically appeared to be exactly similar to Dr. McEwen's case. Both involved the palms and both responded to a solution of a cresol disinfectant in hot water. My technic was to use 0.5 per cent in hot water and have the affected part continually immersed for an hour at a time, this being followed by another hour in saturated boric acid solution, both to be used twice daily. Both of these patients appeared to be completely well clinically.

XANTHELASMA. Presented by DR. SENEAR and DR. WIEN.

The patient was presented before the Chicago Dermatological Society on Oct. 20, 1926, and the case is recorded in the ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY, for March, 1927, page 367. Microscopic slides were again presented.

DISCUSSION

DR. DAVIS: I think that the man had a xanthelasma palpebrarum, and that the other condition was produced by something he had used on that lesion.

DR. FINNERUD: I studied the sections in that case from the lesions of the wrist, mouth and eye. The lesions of the wrist, if seen alone, would certainly be considered typical of lichen planus. In the mouth, clinically, there was marked erosion of the buccal mucous membranes, and so far as I know lichen planus

does not produce such deep erosions; lupus erythematosus, however, does. Histologically, the mucous membrane picture of lupus erythematosus cannot be diagnosed with accuracy, but the picture of lichen planus I believe can be. The histologic section was not lichen planus so far as I am aware. I would like to hear what Dr. Gans thinks about it. The sections from the eyelid were not definitely those of either disorder.

PROFESSOR GANS: I have seen the sections and can only say that the lesions on the wrist are those of lichen planus. It is necessary to remember that we have no specific picture for lupus erythematosus, and therefore we must be careful to remember that in dealing with the eye lesions we cannot prove that the condition is not lupus erythematosus. It may be an atrophic type of lichen planus. I cannot say that definitely, but I would like to believe that the lesions may be an atypical type of lichen ruber.

DR. SENEAR: The opinions expressed by Dr. Finnerud and Dr. Gans were the ones we have had about the case. I would say to Dr. Davis that the question of some external application being responsible for the lesions about the eye had been investigated. The typical xanthelasma had developed several months ago, and some months later the patient applied an infusion of camomile tea. This produced a dermatitis venenata promptly, but those lesions subsided within a few days. All of the patient's family and relatives are decided in their statements that the grayish lesions were there before the tea was used. We have had the patient under observation for three months, and the lesions have remained unchanged during that time. I am sure we can eliminate the question of any external irritant being responsible for the peculiar lesions.

DERMATITIS, NODULAR. Presented by DR. STILLIANS.

An Irishman, aged 83, for the past eight years had had an itching eruption composed of small pimples on the legs and forearms. At times the lesions would become moist but did not trouble him much until within the last two years, when itching became so severe that it interfered with sleep, and at this time larger lesions appeared. Since the onset of the disease he had lost about 40 pounds (18.1 Kg.) in weight.

The patient was a thin man who showed his age but was not feeble. On the inner surfaces of the thighs, both the inner and external surfaces of the legs and forearms, were thickly set nodules which varied in size up to 1 cm. in diameter, most of them capped by a blood crust, some by hyperkeratoses. The lesions on the legs were bluish red; the others were brownish red. There were a few smaller lesions of the same character on the abdomen, chest and back, interspersed with scratch marks.

The Wassermann reaction was negative. There was marked arteriosclerosis and moderate enlargement of the heart. The blood pressure was 150 systolic and 70 diastolic. There had been no casts or sugar in the urine at any time, but on one occasion a trace of albumin and many white blood cells were seen. The blood sugar was 0.78 mg. per hundred cubic centimeters of blood.

DISCUSSION

DR. WILE: I think this case probably could get a majority vote as an unusual type of prurigo nodularis, but to me some features of it suggested an unusual form of dermatitis herpetiformis. There was distinct grouping of the lesions, one on the abdomen, one on the thigh, as distinct from the lesions elsewhere, and the departure from the usual in prurigo nodularis was that the lesions were

not on the extensor surfaces. I think it is sometimes difficult to determine a diagnosis on elderly persons, when there is much itching and hypertrophy. I do not believe any histologic examination would help to clear up the diagnosis, and the chronicity would hold in both disorders. I do not believe the course of the disease would establish a definite diagnosis between prurigo nodularis and dermatitis herpetiformis. It seems to me that as most of the lesions were nodular, it would tend rather to indicate a diagnosis of prurigo nodularis.

DR. NETHERTON (Cleveland): I was inclined to favor the diagnosis of dermatitis herpetiformis, and would like to know whether the patient has ever shown any clinical manifestations other than those shown today. There was a burning sensation not often found in prurigo nodularis, and the distribution was more that of dermatitis herpetiformis.

DR. STILLIANS: I have had this man under observation for several years, and since I have known him the lesions have remained about the same. They clear up to some extent at times and the intense pruritus decreases for a time, and then another exacerbation occurs. The disease began with small lesions which did not itch much and which became moist, but within the last few years it has been of an intensely itching character. When we had the patient in the hospital recently, we tied his hands at night, and the condition seemed to improve. It has been our idea that the scratching tended to keep up the eruption.

DR. PARKHURST: I think a point in favor of prurigo nodularis is the linear arrangement of many of the lesions.

DR. MCEWEN: I was one of those who regarded this case as a form of lichen planus. Several were of the same opinion when we examined the patient, but they are not saying so now. I am not yet convinced that it is not lichen planus.

DR. ZEISLER: I had an opportunity to examine this patient several weeks ago completely disrobed, and he had many of the definite lesions of dermatitis herpetiformis at that time. I have seen several patients who had this vegetating appearance when the lesions have lasted for a long time. The lesions of prurigo nodularis have been found principally on the lower extremities and not on the trunk, and this man had definite lesions on the trunk that are not those of prurigo nodularis.

DR. MITCHELL: Has the patient eosinophilia?

DR. STILLIANS: No.

FOLLICULITIS DECALVANS. Presented by DR. STILLIANS.

An Italian, aged 20, had had a pustular eruption on the scalp and pubic region for two years, which cleared up only to recur every few months, and had caused extensive scarring and baldness. At one time he had a similar eruption on the face, which did not persist long. No ringworm fungi had been found in the hair or scales.

PARAPSORIASIS. Presented by DR. ORMSBY.

A man, aged 26, was demonstrated before the Chicago Dermatological Society on Oct. 21, 1925, and the case is recorded in the ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY (**13**:548, 1926). The disorder was of three and one-half years' duration. The lesions were of the plaque type, situated on the arms, trunk and thighs. The eruption had been entirely cleared up with a series of treatments with an air-cooled mercury vapor light.

DISCUSSION

DR. STILLIANS: By presenting this case Dr. Ormsby has given us a little encouragement in the treatment of parapsoriasis. There are still too many diseases in which we are practically powerless; but I am glad to see some hope for parapsoriasis.

DR. FOERSTER: This case recalls one of parapsoriasis presented by me several years ago, which was accepted as a case of pityriasis lichenoides chronica. The patient later served in the Italian army and took many baths near the coast of Italy in the waters that are supposed to contain radium. When he presented himself at the close of the war, he was completely cured of his former skin disorder.

DR. WEISS: I would like to call attention to the observation of Dr. Engman concerning the plaque type of parapsoriasis. He has treated several patients with these cases by intramuscular injections of mercuric chloride with good results. I have observed one patient whose eruption has practically cleared up on this treatment, but the time is too short to know whether or not the condition will recur.

SYPHILID (PSORIASIFORM TYPE). Presented by DR. MITCHELL.

A man, aged 27, was first seen with two primary lesions in the coronal sulcus on Nov. 15, 1926, exposure having occurred on October 3. A urethral discharge developed on October 12, and the chancres were first noticed on November 4. Boric acid compresses and ammoniated mercury ointment had been applied. On the occasion of the first examination, typical and numerous *Spirochetae pallidae* were found in the dark-field. The lesions were typically indurated. There was no sore throat and no headache. The Wassermann reaction was negative. He was given 0.45 Gm. of neoarsphenamine, and on November 17, 0.6 Gm. and a similar injection was given on the 19th. Owing to the patient's absence from the city, further treatment was not given until November 29, when he received 0.75 Gm. On December 6 small lenticular papules were observed on the arms. The Wassermann reaction was negative, and he received another 0.75 Gm. of neoarsphenamine. On December 9 a similar injection was given. On December 14 the eruption had become more pronounced, and again 0.75 Gm. was given. On December 22 the lesions were decidedly psoriasiform. There was no itching. On December 23 the eruption had become pronounced about the face and neck. On December 29 the lesions, particularly those on the extremities, were bluish red, suggesting multiform erythema. The itching had become more pronounced. In an effort to determine whether the arsphenamine had been a factor, a few daily doses of sodium thiosulphate were given. Apparently no further lesions developed, but those present daily became larger and more psoriasiform. On January 5 the Wassermann reaction was four plus, as was the Kahn reaction. The patient received 0.75 Gm. of neoarsphenamine on January 6, 7 and 10.

At the time of presentation the eruption was showing marked improvement. The plaques were much less indurated and the psoriasiform scales were becoming loosened, revealing eroded areas beneath which there was little induration.

DISCUSSION

DR. ZEISLER: Dr. Mitchell asked me to discuss this case because I questioned him a little about the diagnosis. I would suggest that the man has both psoriasis and syphilis. There seems to be no question that he has syphilis, but the lesions that he has at present, particularly those on the backs of the hands, are more

those of psoriasis. I cannot reconcile the diagnosis of syphilis with the large scaly patch on the back of the hand. It has a superficial resemblance to the lesions of syphilis, but these lesions have become more pronounced on antisyphilitic treatment, and we know that psoriasis is sometimes intensified by arsenic medication. I think that after the syphilis has cleared up he will still have psoriasis, and I would like to see him again.

DR. WILE: The slides shown under the microscope were definitely those of a syphilid, but there were none of the symptoms of psoriatic lesions, and if I were asked to say what type of syphilis the patient had, I would say late. There were definite nodules and a typical deep-seated plasmoma, which is not characteristic of the lesions of psoriasis. It is possible that these are psoriatic lesions superimposed on syphilis, but the slides show the changes of a deep-seated syphilid. I did not see the patient.

DR. MITCHELL: In talking with various physicians about this case, I find that some had not read the history in detail. During the development of this case I had frequent conversations with Drs. Ormsby, Ebert, Finnerud and Montgomery, in which I stated that I had a case in which the condition had resembled syphilis one day and psoriasis the next, and that it would be interesting to see what it eventually proved to be. The scales which were so conspicuous in the lesion have in large part separated, and they had left smooth, shining areas. Part of the erythema is due to the application of salicylic acid and ointment of ammoniated mercury. The histologic appearance is certainly not that of psoriasis but of syphilis, and I am now convinced that this is a psoriasiform syphilid. In the last number of the *Dermatologische Wochenschrift* (Selisky: Dermat. Wchnschr. **83**:1907, 1926) there is the report of a case not unlike this one. I will continue the intensive treatment and attempt to demonstrate the case at the next meeting.

DR. OLIVER: We have recently had two cases of psoriasiform syphilis at Cook County Hospital, and both patients had palmar lesions. I would suggest that Dr. Mitchell try arsphenamine instead of neoarsphenamine for a while.

ULCER OF THE FOREARM. Presented by DR. MITCHELL.

This patient was presented at the October, 1926, meeting of the Society, and the case is recorded in the ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY for March, 1927, page 376. Potassium iodide in large doses by mouth had caused marked improvement after many other measures had failed. Recently the patient had neglected to take the potassium iodide, but the lesion was apparently almost healed.

DISCUSSION

DR. ZWICK: Is there any possibility of this being an artefact? The boy seemed rather to enjoy the exhibition.

DR. COLE: The boy has unequal pupils and a history that suggested the possibility of syphilis in the family. He has improved under treatment with potassium iodide. He has a negative blood Wassermann reaction, but I would suggest that a spinal puncture be done.

DR. MITCHELL: There were a few interesting things about this case. The patient was presented at the annual meeting last year but attracted little attention, except that a few of those present were convinced that it was tuberculosis. At that time the most characteristic thing was the burrowing character of the process. The lesion began as an insect bite, followed by a boil, and then an

extensive undermining occurred, producing a band from 2 to 4 centimeters in width with peripheral extension in all directions. From the first we found *Streptococcus hemolyticus,* and his serum agglutinated this organism in high dilution. The possibility of its being an amebic ulcer was considered, but Dr. Mook thought the progress was not rapid enough. The pus was studied on the warm stage, and although there were epithelial cells somewhat suggestive of amebas, no ameba was demonstrated. There is no syphilis in the family and no suggestion of it. The boy's general health is excellent, and there is nothing but the slightly unequal pupils that would suggest syphilis. The lesion had practically healed by June of last year, and then for no apparent reason there was a recurrence. There have been repeated cultures, but nothing but *Streptococcus hemolyticus* has ever been found. At different times I have found spores in the pus, but I have never been able to get a culture of the fungus. Finally, assuming that it was sporotrichosis, tularemia or something of that kind, the patient was given potassium iodide in large doses. He has had none of this for the past month. As for its being an artefact, there is nothing about the boy to suggest that. He has lost his position on account of the condition, and the family is in poor circumstances. I am at a loss to know how he could produce the undermining that we have been watching for a year. I do not know what the condition is and would like to find out.

LIVEDO RETICULARIS AND TUBERCULID. Presented by DR. EBERT.

A Polish woman, aged 39, presented a marked, permanent, bluish-red, reticular network, which was best developed over the arms, thighs, and buttocks, but which was present in patchy areas over the back, in the axillary folds, in the epigastrium and groins. She had numerous atrophic scars, with surrounding pigmentation on the legs, most marked on the right and especially over the tibia. For the past eight years there had usually been one or two ulcerated lesions on the legs, and these were more active and most numerous in the summer. They usually appeared as small, painful, subcutaneous nodules, which would break down in the course of two or three weeks and form punched-out shallow ulcers, which would heal in about a month with scar formation. They were extremely resistant to local therapy and did not respond to injections of arsphenamine or mercury or the administration of iodides, but were controlled by full sunbaths or general exposure to the ultraviolet light.

The livedo-like discoloration was first noticed four years before presentation on the forearms and thighs, had gradually become more marked, and was most noticeable in cold weather. Her hands had been cold since childhood. She had been married for fifteen years, had one stillbirth twelve years ago and had one healthy child 11 years of age. General physical examination revealed nothing of note. Her blood pressure was 104 systolic and 60 diastolic. The Wassermann reaction of the blood had repeatedly been negative.

DISCUSSION

DR. O'LEARY: I am particularly interested in this symptom complex which I prefer, for the present at least, to term generalized telangiectasia, because our knowledge of these diseases is so meager. Particularly is this true as to etiology. Some of you no doubt are acquainted with our impressions of this entity as recently expressed in the ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY by Dr. S. W. Becker. At the Pittsburgh Dermatological Society's annual meeting last spring a patient was shown with a generalized telangiectasia

thought to be in association with syphilis. Today, a woman was presented with an identical clinical picture of generalized telangiectasia but in association with a tuberculid. Since the publication of Dr. Becker's report I have studied three additional cases, making a total of thirteen in all, in none of which have we been able to demonstrate either tuberculosis or syphilis as the cause of the vascular proliferation. It might be said that occasionally we have noted in the case histories, or clinically, suggestions of one or the other of these diseases, but intensive investigations have been for naught. As jaundice is a symptom due to varied causes, so I believe this entity is due to numerous factors whether they be toxic, chemical or mechanical. Our accumulated evidence indicates that a predisposed vascular tree is essential, either congenital or acquired as a result of disease. The history of vasomotor neurosis, cold cyanotic hands and feet and familial histories of vascular diseases are common observations in practically all the cases; in other words, we see generalized telangiectasia in patients whose blood vessels cannot tolerate repeated insults. Hence, I do not believe that we are warranted in considering that generalized telangiectasia in all its varied degrees is per se a clinical entity, but rather a vasculocutaneous symptom of one of many pathologic processes going on in the body.

Dr. Netherton: I did not see the patient today, but the one I presented in Cleveland was almost a duplicate of the one we saw in Pittsburgh. The patient had syphilis and the telangiectasia started two years later. It was limited to the lower extremities involving the lower half of each leg. At our last annual meeting she was shown again, and there has been considerable improvement. She has had a good deal of treatment, but only within recent months has there been any improvement in the telangiectasia.

Dr. Wile: If I recall correctly, the patient had lesions on both legs and a nodule on one that was supposed to be tuberculous. These lesions did not impress me so much as those of telangiectasis as they did as hemorrhages. They impressed me of lesions we see in Schamberg's pigmentary disease. The fact that the lesions occurred on both legs, and the fact that they may have antedated the nodule make it possible that the patient may have had some hemorrhagic disease which gave rise to the telangiectasia, and that the two lesions are not associated except as to cause and effect. I cannot think of this as the telangiectasia which Dr. Stokes described in syphilis. I saw the patient who formed the basis of his report and know that there was no extravasation of blood. In the case before us there was cyanosis of both legs and feet and distinct hemorrhages, and I am wondering whether we are really dealing with a process of telangiectasia or whether it is a hemorrhagic process. I saw only her legs.

Dr. Ormsby: I think the first group of cases that correspond with this were reported by Ehrmann in 1907, when he reported about half a dozen cases in connection with syphilis. He regarded them as livedo racemosa, and they were different from Stokes' cases of generalized telangiectasia. In 1916 Adamson made a report on the subject of livedo reticularis and recorded a group of cases in which the condition occurred in association with erythema induratum, in which the lesions were of the same type as in the patient we saw today. We have all seen cutis marmorata in persons when they are cold, particularly in children. This, however, is a transient passive congestion. Livedo reticularis occurs also in disorders other than syphilis and tuberculosis, and many cases have been reported as inflammatory livedo reticularis. I believe this is a case of that type and that tuberculosis is the etiologic factor. It is probable

that the purpuric lesions on the legs are accidental. The characteristic lesions are much more marked on the buttocks and forearms than on the legs, where gravity could play no part. Dr. Ebert will describe the histologic picture he found in the affected vascular and other areas studied by him.

DR. EBERT: My impression is that this case is different from those described by Dr. Becker in the ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY. In this case the pattern seen on the skin follows completely or partially the cutis marmorata. In Ehrmann's original cases syphilis, and in this case perhaps tuberculosis or some other etiologic agent, has caused permanent damage in the deep blood vessels, and I think the characteristic changes were found in sections taken from the buttock, where the lesions are most marked. There were proliferative changes in both veins and arteries, as well as a thrombosis of some of the veins at the junction of the corium and subcutaneous fat. There was a round cell infiltrate in the corium. The lesions on the legs do not show up well today. They are principally scars, pigmented areas and minute hemorrhages. The capillary hemorrhages were not present when the ulceration was most marked — during the summer. The section from the ulcer on the leg, which was taken last summer, shows that here also the essential pathologic change is in the blood vessels, both the arteries and veins showing proliferative changes.

DR. SCHMIDT: Last June in Vienna a case similar to this was presented, and Dr. Nobel rose to put it in the group described by Adamson. Ehrmann heard this and became excited about it, and said that the trouble was that they did not go deep enough in making the biopsy, as a result of which the vascular changes in the cutis, typical of tuberculosis, were not seen.

DR. EBERT: In making the biopsy we were careful to go to the muscle fascia. It is deep, and the changes in the blood vessels are plainly shown. Cases have been reported in which there was no pathologic changes in the blood vessels, but possibly the biopsies were not deep enough to include them.

DR. FOERSTER: Are we to understand that the racemose condition of the vessels is actually tuberculosis in these cases? I cannot reconcile that with my idea of the pathology of tuberculosis. It seems to me that a condition of the sort we have seen today may be tuberculous as a secondary manifestation, that is, we have a stasis produced by dilatation, and in this instance perhaps tuberculosis may be led to manifest itself in this particular localization.

DR. ZWICK: A recent publication in *Deutsches Archiv für klinische Medizin* (**148**:67, 1925) from Otfried Mueller's Clinic describes results of investigations in cases of cutis marmorata. Examinations were made in vivo with the corneal microscope; the observations were later confirmed by histologic examination. The author determined that some of the dilatations when fully developed were aneurysmal conditions of the capillaries. These conditions were explained as being vasoneurotic in origin, but possibly the result of injury. The aneurysms may have started as proximal ectasias during spasms of distal divisions of the capillaries. In the beginning they may disappear, but as the injuries continue or are repeated, the conditions become permanent. This explanation parallels Dr. Foerster's suggestion of a toxic action, although cold, heat, light and other factors may have similar effects in persons with a constitutional defect (diathesis). It is the "constellation" of the various factors which produces the pathologic condition.

DR. O'LEARY: In the cases studied with the diascope we did note changes in the capillaries of the beds of the finger-nails. In a patient now under

observation the capillaries are almost three times as numerous as normal and greatly enlarged. Epinephrine has had but transitory effect on the capillary loops.

DR. EBERT: I am heartily in agreement with Dr. Foerster that no one could call the changes in the blood vessels tuberculous. As Dr. Ormsby pointed out, almost an identical condition is produced by other agents, particularly heat. A case reported in the German literature was due to the toxic result of the administration of arsphenamine. Cases have been reported in association with infections, such as typhus.

MACULAR LEPROSY. Presented by DR. ZEISLER and DR. EISENSTAEDT.

A Lithuanian, aged 67, presented an eruption of four years' duration, situated chiefly on the trunk. The lesions were yellowish-brown macules, some of them distinctly annular and with anesthetic centers. The patient had complained of pain and tingling in the lower extremities for six months. Lepra bacilli had been demonstrated in the cutaneous lesions.

DISCUSSION

DR. LIEBERTHAL: I saw this patient in my clinic about ten weeks ago, the first time he was seeking medical advice for his condition. The diagnosis then made was leprosy, which was corroborated by the demonstration of lepra bacilli in the serum from a nodule. He was sent to the Cook County Hospital for isolation and treatment. In examining him today I noted that most of the numerous lepromas on the face and extremities first seen at the clinic had disappeared.

DR. ZWICK: Were the therapeutic results obtained with Hoffmann's or Dean's esters, or the pure oil of chaulmoogra?

DR. OLIVER: The patient has been given chaulmoogra oil by mouth and the esters intramuscularly. He has been under treatment for four months and has received about twenty injections.

A CASE FOR DIAGNOSIS; EPIDERMOLYSIS BULLOSA (?). Presented by DR. ZEISLER.

An infant, aged 10 months, had a bullous eruption on the hands and feet which had been present since two weeks after birth. A few lesions had appeared around the ears, mouth and gums. The child was breast fed but was developing slowly, weighing only 14 pounds (6.4 Kg.). The blood Wassermann reaction of both mother and child was negative. The blood showed 2 per cent eosinophils.

DISCUSSION

DR. TAUBER: I would like to make a little addition to the description by calling it localized epidermolysis bullosa. In certain patients — we have a series of five in one family in which three have generalized epidermolysis bullosa — we can produce the lesions at will. In two others we can get them only on the lower extremities and hands and not on the trunk, but if we tap them with a hammer we can produce a lesion almost any place. I think the lesions are generalized in some cases and localized in other instances. This case is the localized type.

PROFESSOR GANS: In this case the nails were atrophic, and I think there is no doubt of its being a case of epidermolysis bullosa. We have several types of this disease in which we find this hereditary characteristic, and it seems to me that they are all attributable to a congenital dystrophy or dyskeratosis.

DR. TOBIAS: We have a similar case in a boy who has lesions on the feet and on the tongue, and by using collodion on the feet we prevented lesions from occurring at the sites of trauma.

DR. WILE: There is a history of the production of these lesions by trauma, and while I do not think this is not a case of epidermolysis bullosa, I think we should not let the case go by without suggesting that it may be something else. I do not think that the bullae on the feet and elsewhere on the child should be considered as those of epidermolysis bullosa. There are other bullous lesions which could look like this and which could produce atrophic conditions in the nails, and I do not think that without more evidence than the appearance of bullae on the feet, the thigh or elsewhere, we should make a definite diagnosis. I think this might be a case of any of the other bullous disorders of the newly born. In the few cases that we have seen in which epidermolysis bullosa occurred the bullae were much smaller. I thought I saw a little hemorrhage in these blisters today, and I do not recall having seen those in lesions of epidermolysis bullosa. I would suggest that we do not subscribe too readily to the diagnosis, but wait until the case has been followed for a longer time.

DR. WEISS: I wish to endorse what Dr. Wile has said, particularly as one of the cases of erythroderma ichthyosiforme which we have had under observation for a long time started as bullous lesions on the feet. As the child grew older, she developed the typical lesions of erythroderma ichthyosiforme.

PITTSBURGH DERMATOLOGICAL SOCIETY

Regular Meeting, Jan. 20, 1927

F. M. JACOB, M.D., *Presiding*

ACUTE INFECTIOUS ECZEMATOID DERMATITIS. Presented by DR. GUY and DR. JACOB.

P. S., a man, aged 33, presented a chronic dermatitis involving the entire area of both legs. The condition began about two years prior to presentation as an epidermophytosis involving the feet and ankles. Since then it had spread slowly as an erythema and satellite lesions consisting of follicular pustules which were also scattered throughout the main body of the inflammation. Various kinds of treatment had been used with varying success. The patient was presented for suggestions as to treatment.

DISCUSSION

DR. PHILLIPS: I agree with the diagnosis. A nonspecific milk preparation is sometimes used intramuscularly and also by direct injection into the lesion, blocking off small areas at a time.

DR. CRAWFORD: I agree with the diagnosis and endorse the use of boric acid locally.

DR. HOLLANDER: I wish to call attention to a definite demarcation and localization of the eruption, also to the occupation of the patient, who works in front of intense heat in a steel mill. I think that the condition is that

of a trade dermatitis with a secondary pyogenic eruption of the hair follicles. The soaking of the clothes of the patient with oils could be responsible for the eruption. These conditions are recalcitrant.

DR. GUY: The patient has been given vaccines, peptone, whole blood, and a nonspecific milk preparation. Various antiseptics in solution and ointment form, tar, ultraviolet rays, roentgen rays, had been applied locally with varying success. There had been a gradual improvement under treatment consisting of protein shock irradiation with the roentgen-ray and ultraviolet rays and application of rather strong antiseptics locally. I believe that the heat has been predisposing to development of the eczematoid dermatitis.

BLASTOMYCOSIS. Presented by DR. WERTHEIMER.

F. S., a Croatian, aged 40, a laborer, for the past seven months had had on the trunk, thighs, legs and arms scattered furuncular, slightly painful lesions varying in size from that of a walnut to that of a five-cent piece. On the inner surface of the right arm, middle third, and scapular region were grouped bluish-red, soft lesions with central greenish-yellow crusts varying in size from that of a pea to that of a dime. A similar lesion was present on the inner surface of the left arm. On the left thigh, posterior surface, lower third was a clean, punched-out, indolent ulcer the size of a twenty-five cent piece. On the right upper lateral surface of the chest at the posterior axillary fold was a subcutaneous, doughy, nonpainful tumor the size of a walnut, freely movable in the subcutaneous tissue and not attached to the skin. Physical examination of the chest revealed a normal heart, but there were numerous moist râles at the left lower axillary region and bronchial breathing over the right interscapular region, possibly due to a scoliosis which was present. Roentgen-ray examination of the chest showed no evidences of a gross pathologic condition of the lung, it showed marked scoliosis, and the ribs in the mid-dorsal region, which might suggest an old Pott's disease but was probably due to the scoliosis, and not to tuberculosis. Repeated blood Wassermann reactions were negative. Smears and guinea-pig inoculations were negative for the tubercle bacillus, but the smears showed many pus cells and only a few isolated large gram-positive spherical coccoid forms with branching filaments; on culture *Blastomyces* was found. The patient always improved under treatment with iodides.

DISCUSSION

DR. AMSHEL: This is the systemic form of blastomycosis. Small doses of iodides hold the eruption in check but larger doses will be given in an endeavor to clear it up entirely.

DR. GUY: With the diagnosis established by culture, I would be interested in ascertaining the source of the infection.

CHRONIC DERMATITIS VENENATA. Presented by DR. HOLLANDER and DR. FISHER.

Mrs. L. S., aged 21, American, a meat packer, presented a patchy, irregular, bilateral, vesicular dermatitis. The condition was present on the scalp, where is was slightly edematous and scaly; on the neck, where the patches were confluent; on the arms, in the groin, and on the legs, where it appeared as an eczema marginatum. The entire picture was that seen in a fixed eruption with a dermatitis venenata. Scrubbing and calamine lotion have improved the condition markedly. The condition was of one year's duration.

DISCUSSION

DR. PHILLIPS: I consider this a case of dermatitis venenata on account of the distribution of the lesions affecting the seborrheic areas.

DR. CRAWFORD: I think that this is a case of pyogenic folliculitis because it affects the hair follicular areas.

DR. NORRIS: I consider the case a chronic dermatitis venenata with seborrheic dermatitis.

DR. JACOB: I quote the case reported by Dr. Highman — the case of dermatitis venenata due to English ivy, in which the underlying factor was seborrhea.

DR. HOLLANDER: On first examination the picture was that of a vesicular dermatitis, with the exception of the scalp, where there was a marked secondary pyogenic infection of the hair follicles. The irritant has not been discovered in this case, although minute search was made for the determination of it. The manner in which this fixed eruption has responded to mechanical removal (by scrubbing) of the irritant present is most gratifying, and the improvement in the condition, which was progressively getting worse until this therapeutic measure was undertaken, is the reason for the presentation.

PSORIASIS (UNUSUAL TYPE). Presented by DR. HOLLANDER and DR. BAER.

Mr. J. E., aged 40, married, a steel worker, presented a generalized eruption involving the legs, arms, body and scalp. The exposed surfaces were free. The eruption was composed of various sized and shaped lesions, most of which were covered with scales, but some of which showed nothing but a thickening of the skin. The condition was of six weeks' duration, and appeared suddenly. The patient had never had a similar eruption before. The question of dolomite dermatitis had been seriously considered. The individual lesion showed pinpoint bleeding, apparently nonpruriginous. Laboratory tests were negative except for a high eosinophil count (5).

DISCUSSION

DR. GUY: I think that the case suggests psoriasis with certain modifying features found in seborrheic dermatitis.

DR. CRAWFORD: I consider it a case of dermatitis seborrheica.

DR. HOLLANDER: The differential diagnosis at first was between psoriasis, lichen planus, seborrheic dermatitis and dermatitis venenata due to dolomite. The total absence of itching, the presence of a typical psoriatic involvement of the scalp, the presence of psoriatic lesions on the glans penis, the absence of pinpoint bleeding on removal of scales, were the determining factors in diagnosis.

ERYTHEMA ELEVATUM DIUTINUM. Presented by DR. WILLARD.

V. P., a housewife, presented on the hands, fingers and extensor surface of the elbows and knees, about thirty raised, shining, sharply outlined, deep-seated, tender nodules, not adherent to underlying tissue, most of them situated near the joints of the fingers. They varied in color from red to purplish red and in size from that of a pea to that of a bean. Some of the nodules on palm of hands or fingers were becoming flattened and less red.

The condition was of four months' duration. The tonsils were cryptic. Some of the teeth were decayed. The patient had been taking phenobarbital con-

stantly for epilepsy, which she had had for two years. The family and personal history otherwise were not significant. The blood Wassermann reaction was repeatedly negative.

DISCUSSION

DR. GUY: I think that the lesions are rheumatic nodules, although that opinion does not negate the diagnosis as presented, because Crocker originally stated his opinion that erythema elevatum diutinum and rheumatic nodules were etiologically identical.

DR. CRAWFORD: I consider it a form of drug eruption.

DR. BAER: I wish to call attention to the fact that the patient presented psoriatic lesions on the knees and elbows.

DR. HOLLANDER: I believe that Luminal which the patient has been taking for more than a year may have been responsible for the eruption.

DR. JACOB: I have never seen a nodular erythema resulting from the administration of phenobarbital.

DR. WILLARD: If the lesions are rheumatic nodules, they should be present about the ears.

PSORIASIS IN A NEGRO. Presented by DR. STANLEY CRAWFORD.

A. H., aged 6, had previously been presented for the diagnosis of her case. She had on the outer surface of her arms and legs small, smooth, intracutaneous lesions averaging 5 mm. in diameter. The diagnosis was not made either clinically or through a biopsy at the time. She had since developed typical lesions of psoriasis on her arms and legs, with a characteristic scaling, punctate bleeding and histology. The lesions measured from 5 mm. to 2 cm. in diameter.

CARCINOMA OF THE BASE OF THE TONGUE. Presented by DR. HOLLANDER and DR. FISHER.

Mr. W. S. S., aged 61, married, presented at the root of the tongue beyond the circumvallate papillae, a tumor which stood out prominently from the rest of the tongue. On first examination it had a cauliflower appearance with a raised border which was firm and had a central ulceration. The glands in the neck were enlarged, especially on the left side. After a course of deep therapy radiation, the patient showed a marked improvement locally, although the glands on the left side did not show much change. From a laboratory standpoint the patient was normal.

DISCUSSION

DR. GUY: I believe that the prognosis in these cases is bad eventually, except when an early diagnosis is made and radical treatment of some sort is given. This case at least shows evidence of good palliation.

DR. NORRIS: I suggest the advisability of electrocoagulation in the absence of lymphatic involvement in the so-called nonmetastatic type of carcinoma of the tongue.

DR. HOLLANDER: I wish to call attention to the fact that marked amelioration of symptoms followed the use of deep therapy radiation. The location of the lesion made the attack with radium either in form of emanation or needles, difficult, and it associated with it the danger of secondary infection and a great deal of discomfort.

GRANULOMA INGUINALE. Presented by DR. GUY and DR. JACOB.

R. L., a white man, aged 21, presented on the mucous surface of the foreskin several various sized irregular ulcerations. They showed precipitous sides and irregular heaped up centers; one in the sulcus had the appearance of a punched out ulceration and, on account of the location, gave the impression of induration. Curettings showed numerous groups of clumped gram-negative diplobacilli.

DISCUSSION

DR. HOLLANDER: I agree with the diagnosis of granuloma inguinale, especially on account of the appearance of an ulcerative lesion in the sulcus which has considerable induration and carries with it considerable destruction. Granuloma inguinale may begin in other locations than the inguinal region, as has been shown in a number of cases.

DR. JACOB: Although the microscopic picture is not typical, I believe that this is a case of granuloma inguinale. The patient has been given a tartar emetic.

KAPOSI'S SARCOMA. Presented by DR. STANLEY CRAWFORD.

S. A. G., aged 56, a farmer, of Scotch-Irish nationality, had developed, during the past three years in the skin of the lower two thirds of both legs and ankles and the dorsa of both feet, purplish infiltrations, from 2 to 3 mm. in diameter. Most of the lesions were discrete, but many have become confluent into small linear, gyrate or rectangular areas, averaging 1 by 1.5 cm. in diameter. The lesions were in the skin, and were distinctly palpable and accompanied by a marked burning sensation, relieved only by the application of camphophenic. There were small purplish infiltrations developed into small adherent crusts beneath which a superficial erosion developed, ranging from 3 to 10 mm. in diameter. The patient had noticed that the lesions subsided after a few months, became flatter, less confluent, assumed a brownish color, and again developed after a few months of original purplish color, with slightly more marked infiltration. Previous to the onset, three years before presentation, he had had influenza which was followed by some swelling of the ankles and then a development of the present condition. He had always enjoyed good health. He was thin, tall and active. (The patient was seen through the courtesy of Dr. F. C. Knowles of Philadelphia.)

DISCUSSION

DR. GUY: I agree with the diagnosis and wish to call attention to the fact that the condition has developed in a native born Scotch-Irishman.

EPIDERMOLYSIS BULLOSA. Presented by DR. PHILLIPS.

J. L., a boy, aged 10 months, presented a condition which had been present since birth. The lesions consisted of bullae, chiefly situated over the hands, arms, feet, legs, buttocks, lips and tongue. Most of the bullae were filled with serum. Others were hemorrhagic, while a few of the smaller ones were filled with pus. They varied in size from that of a pea to that of a goose egg. There was loss of nails with an atrophy of the nail bed and folds, there were no signs of any nails ever having been present; however, at birth all nails were perfect.

Some pigmentation was present over the areas repeatedly attacked, as the knees and ankles; however, considering the size of the lesions there was comparatively little pigmentation or atrophy with the exception of the loss of the nails. The hair was not brittle, and, while not luxuriant, would be considered normal for a 10 months old child. In fact, the child was a normal healthy baby suffering but little discomfort except when the tongue or lips were covered with a large bullae or left denuded of epithelium after their rupture.

The family history was negative; one sister, 3 years old, was normal. The father and mother were not related, and there was no history of a similar condition in relatives.

SPOROTRICHOSIS? Presented by DR. STANLEY CRAWFORD.

Miss G. R., aged 22, of Welsh nationality, had had at the age of 17 a red rounded mass on her right cheek which discharged a thin pus for nine months and then healed, leaving a depressed scar like that after a fistulous condition. Soon after the appearance of the lesion on the right cheek, there appeared a similar lesion on the left cheek, a small lesion on the hypothenar prominence of the left hand, and two lesions on the dorsal surface of the left wrist and two lesions on the upper outer surface of the right arm, all of which left depressed irregular scars which had slightly reddish borders that measured from 5 to 15 mm. in diameter. In the lower inner quadrant of the right breast was a scar 1 by 4 cm. in diameter, where she had had a similar lesion when aged 18, which discharged a thin yellow pus having a peculiar odor, through a small fistulous opening. When this lesion had almost healed, a similar lesion developed in the upper inner quadrant. At the time of presentation this lesion was 3 by 1.5 cm., elevated and infiltrated, rather firm at the borders and soft and fluctuant centrally; on compression, a small amount of thin seropus could have been expressed through two or three invisible openings. A stained smear of this material revealed a sporothrix, as did the culture.

DISCUSSION

DR. GUY: I believe that possibly a question mark should be appended to the diagnosis, because the organism had been identified only in a smear. Ordinarily this is difficult, requiring culture to establish the identity of the organism. A colliquative tuberculosis of the hypoderm might be secondarily infected by a fungus.

TOXIC ERYTHEMA. Presented by DR. PHILLIPS.

Mrs. J. E. W., a housewife, aged 35, presented lesions over the face, neck, chest, shoulders, arms and palmar and dorsal surfaces of hands and fingers. These lesions first started on the arms about three months prior to presentation and gradually spread to the affected areas. It had never itched, and subjectively no symptoms were noted except a soreness on pressure and a stiffness where dry scales formed. No oozing had ever occurred. It was a bright red, scaly eruption, with confluent lesions. Most of the color disappeared on pressure.

There was a history of one child, living and well, one dead from strangulation of cord, and one miscarriage. The patient had been operated on June, 1926, for gallbladder trouble. No stones were found on incision, the wound healed readily.

DISCUSSION

DR. CRAWFORD: I consider it a case of dermatitis medicamentosa possibly resulting from injections of coal-tar products.

DR. AMSHELL: I think this is a case of dermatitis venenata.

DR. HOLLANDER: This is a case of toxic erythema with scaling. The question of dermatitis venenata can be disposed of in the absence of the slightest sign of edema or vesiculation, the total absence of any subjective symptoms and the absence of any sign of thickening or infiltration. The patient's legs present a cutis marmorata which is the result of a vasomotor disturbance, and it is possible that the condition is based on a vasomotor disturbance with a secondary toxemia, and that the involvement of the exposed surfaces may be due to some action of sunlight in the absence of the two other causes.

DR. PHILLIPS: I agree with Dr. Hollander.

PEMPHIGUS VULGARIS. Presented by DR. HOLLANDER.

Two cases of pemphigus vulgaris, which had been presented previously, were shown after the direct transfusion of whole blood. The patients showed marked improvement both from the standpoint of the local lesions and general health.

LESTER HOLLANDER, M.D., Temporary Secretary.

NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, Jan. 25, 1927

H. H. WHITEHOUSE, M.D., *President*

A CASE FOR DIAGNOSIS. Presented by DR. ELLER.

W. C., a woman, aged 35, presented a lesion on the right shoulder which had appeared eight years previously. At that time the patient noticed a bluish-brown discoloration of the skin in the affected area, which did not change in appearance for three years. Then it became elevated and thickened. The involved area was about 4 inches (10.16 cm.) long by 3½ inches (8.8 cm.) wide. The patient was first seen two years previously to presentation, at which time she exhibited numerous flat, violaceous nodules, which became diffuse, forming one large lesion of varying thickness. The late Dr. Fordyce and other members of his staff who saw her at that time made a clinical diagnosis of sarcoid. A section was taken at that time for microscopic study by Dr. Satenstein and was diagnosed as fibroma molle. The lesion received twelve filtered roentgen-ray treatments without any change. Shortly after this course of treatment, the patient was seen by Dr. Whitehouse, and was given arsenic internally without any improvement in the lesions. Then for six months she did not receive treatment of any kind, and the lesion did not change its character or appearance. About nine months previous to presentation she again came under observation, and the lesion was treated with suberythema doses of filtered radium; the lesion softened slightly, but not enough to warrant the continuation of this treatment. One or two new nodules had developed. A second biopsy was made by Dr. Fraser one month before presentation. The microscopic picture was that of neurofibroma. The slide was submitted for examination. The nodule excised was of six weeks' duration and was untreated.

DISCUSSION

DR. SCHWARTZ: It is a rather unusual condition clinically, but microscopically it shows the structure of a fibroma. No special stain to demonstrate nerve tissue has been made, but from the peculiar arrangement of the fibers in bundles, I think that the diagnosis of neurofibroma is correct.

DR. HIGHMAN: Clinically and histologically, the condition resembles keloid, and a differential diagnosis histologically between keloid and hard fibroma could not be made. I think the spontaneous keloid is a fibroma. This case does not look like sarcoid clinically, nor like sarcoma, although frequently the diagnosis of sarcoma depends on the histologic aspect of the lesion; but when it comes to the histologic diagnosis of neurofibroma, I am always confused. There are fibromas that start from the nerves, depend for their origin on the sheath of the nerve and incorporate some nerve fibers. In an ordinary so-called neurofibroma, I have never seen one which was substantiated histologically, except for the fact that nerve fibers could be found in any lesion of the skin if one looked for them. My impression is that this is an unusual type of keloid.

As to treatment, this patient has had an endless amount of all kinds of treatment, all of which has been either destructive or irritating, and it seems to me that she now has a keloid, which would naturally be augmented by such treatment. Therefore, it might be wise to interrupt treatment for six or eight months, with the idea of determining whether by putting the lesion at rest it would grow worse or better. Nothing would be lost except time, and that would be serious only if the lesion is malignant, which it does not appear to be.

DR. MACKEE: To a large extent I agree with Dr. Highman. Both the present appearance and the past history are confusing. Treatments of various kinds applied over a long period have so modified the lesion as to make it difficult to visualize the original condition. Clinically, the nodules suggest keloid although, if they are keloids, they should respond to roentgen-ray irradiation. I made a rapid examination of the microscropic specimen, and could not distinguish between early keloid and fibroma.

DR. MALONEY: My impression of this case is that clinically it is keloid, and I agree with what Dr. Highman says about treatment. In view of the fact that the patient has had so much roentgen-ray and radium treatment, it would be well to stop further treatment and let her alone for a while.

DR. RULISON: I received the impression from the history that the lesion was not painful, but when some one was feeling one of the nodules I saw the woman wince.

DR. ELLER: The lesion has not been tender or painful, but it may be that there is some reaction now from the radium treatment.

DR. FRASER: I am convinced that the condition is neurofibroma. The histologic picture, to my mind, is conclusive. Certain areas around the center of the lesion bear a clinical resemblance to keloid. Sections taken from the growing border of the lesion show the typical microscopic picture of neurofibroma. There is no evidence of keloidal formation in these. If the central lesions are keloids, they are secondary, and are an expression of excessive repair.

Dr. Ewing and Dr. Alexander Fraser, to whom I submitted slides, independently made a histologic diagnosis of neurofibroma. Regarding treatment, I agree with the views expressed by Dr. Highman that it might be well to discontinue all treatment for the present. MacKee in his textbook states that nerve tissue is resistant to the roentgen ray. Therefore, radiation treatment

would seem to be contraindicated. I recall two cases of neurofibroma of the skin which came under my observation at the Cornell Clinic. One of the patients was treated successfully by endothermy. They were similar in their mode of onset and clinical behavior to the case under discussion. The clinical diagnosis in the first was sarcoid; in the other, it was tuberculosis cutis. Microscopic study of sections did not reveal any evidence of either sarcoid or tuberculosis. The histologic diagnosis in both was neurofibroma. In the first case a cure was effected by endothermy; the other patient was not treated.

DR. LANE: I see no reason for supposing that there is any use in persisting in the treatment that has already been used. My opinion is that the only likelihood of getting rid of the lesions is by surgical removal. This would necessitate a rather extensive operation, and the uncertainty as to whether or not part of the present condition is keloidal would make one hesitate about employing that procedure.

DR. HIGHMAN: When a keloid is in its first stages and before the fibrosis is established, I think it is rich in fibroblasts. I should like to know how the differential diagnosis can be made between keloid and fibroma histologically.

DR. WHITEHOUSE: The case interests me, for I first saw it, not in its initial stage, as a pigmented patch, but after these growths and the infiltration had taken place, and it then did not show any sign or suggestion of being keloid. It was a spontaneously evolved condition, and I think that it had not been treated. Clinically, it gave me the impression that it was a sarcoid. I treated the patient with increasing doses of arsenic with little or no effect; also I took two or three isolated nodules and froze them with carbon dioxide snow; that flattened them, but did not take them away. I cannot believe that it is a case of keloid, and the pathologist finds fibrosis almost exclusively.

URTICARIA PIGMENTOSA. Presented by DR. ELLER for DR. WHITEHEAD.

J. B., aged 32, presented an eruption on the face, trunk and extremities, which had been present without change in appearance for fifteen years. There were no subjective or other symptoms. The eruption consisted of discrete, ham-colored papules, which average the size of a small pea. The unusual feature about it was that the eruption was present on the face. Rubbing any of the papules would precipitate a swelling.

NOTE.—Since this patient was shown, a microscopic study made by Dr. J. F. Fraser confirmed the diagnosis of urticaria pigmentosa.

DISCUSSION

DR. FRASER: I accept Dr. Eller's diagnosis of urticaria pigmentosa. This is the first time I have seen lesions on the face in this condition, but that does not militate against the diagnosis. Cases in which lesions were present on the face have been reported. I have a patient with a similar condition, with the exception of the lesions on the face. This patient has syphilis, and the point I wish to emphasize is that, while the antisyphilitic treatment cleared up the symptoms of syphilis, including the Wassermann reaction, it had no effect on the urticarial lesions.

DR. MACKEE: I agree with the diagnosis, and I believe that in spite of the fact that the disease is common, the case is well worthy of presentation because of unusual features. It is the first time I recall having seen lesions of urticaria pigmentosa on the face. The lesions are the color of raw ham

rather than the usual yellowish or brownish color of urticaria pigmentosa; also the lesions are distinctly grouped. This color and grouping, which are characteristics of syphilis, are not often encountered in urticaria pigmentosa.

I have not heard of roentgen rays having been applied to the thymus gland in cases of urticaria pigmentosa. Probably it has been done, but I have not heard of it. It has been tried in psoriasis, and some clinicians have claimed excellent results, while most dermatologists have failed to obtain good results with this particular method.

DR. WHITEHOUSE: I do not recall any cases in which the patients have been treated with the roentgen ray. This treatment is rather contraindicated.

DR. WHITEHEAD: I think Hollander tried it in one or two instances on children. As far as I remember, he reported four cases, in two of which the condition cleared up temporarily. A year and a half ago I had a patient with urticaria; I had the thymus examined with the roentgen ray and found it enlarged, but I have never used either radium or the roentgen ray for treatment in such cases.

DR. WHITEHOUSE: I agree with the diagnosis of urticaria pigmentosa, but lesions on the face are extremely rare. The other men have not seen them in this location, nor have I. The suggestion made by Dr. Fraser and the remarks by Dr. MacKee about its clinical resemblance to a maculopapular syphilid are interesting. There are hard papules and grouping, but, of course, the duration of the condition, fifteen years, would entirely rule out syphilis

A CASE FOR DIAGNOSIS. Presented by DR. SCHWARTZ.

C. Z., a man, aged 19, was born in the United States, of Italian parentage. Family and personal histories were unimportant. Examination revealed the presence of a nonitching eruption which first appeared two years prior to presentation. It was limited to the arms, forearms, hands, feet and glans penis. The lesions were of the maculopapular and papular type. On the arms, they presented a reticulated appearance, suggesting the parakeratosis variegata of Unna and Pollitzer. On the dorsal surfaces of the hands and feet, they appeared as discrete, purplish-red papules varying in size from that of a pinhead to that of a millet seed, which showed adherent scales when scratched. In certain areas, notably on the insteps and sides of the feet, the lesions presented a verrucous appearance. There had never been pruritus or other subjective symptoms. The microscopic picture was essentially the same in all the lesions. Sections from the arm showed a more pronounced edema and greater capillary dilatation than those from the hyperkeratotic and verrucous lesions on the feet. There was a dense round cell infiltration of the papillary body. In places the cellular exudate could be seen replacing the epidermal cells almost up to the corneous layer. There was evidence of edema in both the corium and the epidermis. The corneous layer was everywhere thickened (hyperkeratosis) and in places showed parakeratosis. The granular layer was absent in those areas in which the cellular exudate encroached on the epiderm, and was well preserved where the cellular exudate was sparse.

DISCUSSION

DR. ELLER: I do not think that the present clinical appearance fits in with the presentor's diagnosis of parapsoriasis variegata, but I am not able to offer any other diagnosis.

DR. RULISON: I have seen the patient several times and have no idea what the condition is. I have no clinical diagnosis or suggestion to make.

DR. MACKEE: I have considered the possibility of arsenical dermatitis, keratoderma blenorrhagicum, Darier's disease and angiokeratoma, but these diagnoses can be eliminated both clinically and microscopically. I agree with Dr. Eller that the clinical appearance does not agree with the accepted appearance of parapsoriasis lichenoides chronica, in which the papules resemble the ordinary type of lichen planus. According to my recollection of parapsoriasis variegata as described by Unna, Pollitzer and Santi, it does not resemble the case under discussion. The eruption is too polymorphous. I am unable to make a diagnosis.

DR. HIGHMAN: From the lesions that this man had on the fingers and hands, I would think that he unquestionably has angiokeratoma of mibelli—not the type seen on the scrotum, miscalled angiokeratoma, because it has the characteristics of angioma but not of keratoma. But it is difficult to reconcile such a diagnosis with the verrucous lesions on the man's instep and the other lesions on the body. Furthermore, histologically, unless angiokeratoma has not yet been exhausted as to its microscopic possibilities, this lesion does not look like that of the angiokeratoma of Mibelli. It is certainly a rare condition. I do not recall anything in the literature that corresponds to this case. The outstanding feature, besides the keratomas, is the telangiectasia. Whether the eruption is the beginning of something that we might associate clinically with poikiloderma, I do not know; time will show. It is possible that the knowledge concerning telangiectatic diseases of the skin is being enriched with something which has not yet been observed. From that standpoint, although there does not seem to be a Latin or Greek name to apply to it, it seems to be a case which is well worthy of further study.

As to blenorrhagic keratoma, some lesions suggest it, but it is usually accompanied by a purulent discharge from the urethra and by involvement of the joints. The blenorrhagic keratoma appears under the dressing of the joint in such cases. I should exclude blenorrhagic keratoma for lack of concomitant evidence. I understood that there was no history of gonorrhea.

I do not know whether one could consider parakeratosis variegata. I can see no difference between parakeratosis variegata and parapsoriasis.

DR. FRASER: I offer a tentative diagnosis of parapsoriasis of the lichenoid type. The reticulated appearance on the arms and the linear arrangement of the lesions about the flexures of the elbow suggest the parakeratosis variegata described by Unna and Pollitzer. The papular lesions on the hands and feet are not so characteristic, but these lesions have been described as forming part of the clinical picture. The adherent scales which come into view on scratching the papules are characteristic. Hyperkeratosis is an essential feature of the microscopic picture, and I should explain the verrucous lesions on the insteps and sides of the feet as an expression of excessive hyperkeratosis.

I have examined microscopically sections from lesions on the arms, and on the feet, and I wish to emphasize the fact that the histologic picture is essentially the same in all, and conforms with the descriptions given by Unna and others for this type of parapsoriasis.

Dr. MacKee has mentioned gonorrheal keratosis, but it cannot be that, for the patient has never had gonorrhea. The histologic picture excludes Darier's disease and angiokeratoma. Drug eruptions, I believe, can also be excluded.

I agree with Dr. Highman that the case should be further studied and presented at a future meeting of the society. Subsequent observations may reveal a new dermatosis.

In a case presented by Dr. Wallhauser the lesions were confined to the extremities.

DR. WHITEHOUSE: I think this is a case that warrants prolonged study, and I think it will be solved in time. It looks like a lichenoid type of parapsoriasis to me. The condition on the ankles might well be caused by traumatism and irritation. I should think parakeratosis variegata would be a less likely diagnosis than a lichenoid parapsoriasis. I have just about finished with a case which I have had under observation for a number of months, and which to my surprise has cleared up under treatment with 1/10 gr. (0.006 Gm.) pilocarpine three times a day, and 3 per cent salicylic acid and 5 per cent resorcin ointment used twice daily. The papules came out as they do in this case and then flattened. When one looked at them directly they were red and raised, but looked at crosswise they were shiny, not red, and showed the quality of parapsoriasis. When I last saw the patient they had all cleared up. I had used the same local remedies throughout, but the lesions did not clear up until the pilocarpine was given. The disease may come back, but it has disappeared temporarily at least.

DR. SCHWARTZ: I am much indebted for the discussion. I have studied the case carefully, both clinically and histologically. The various diagnoses suggested were considered seriously. The patient said that he had never had gonorrhea, and careful examination of the genito-urinary organs revealed no evidence of the disease. Keratosis blenorrhagica can be excluded by the histologic examination, as can also angiokeratoma.

I agree essentially with what Dr. Fraser has said, particularly about the lesions on the arms; but I cannot reconcile the marked hyperkeratotic lesions on the feet with the diagnosis of parapsoriasis lichenoides chronica, unless it is a new and hitherto undescribed feature of the disease. We shall study the case further and report at another meeting.

A CASE FOR DIAGNOSIS AND TREATMENT: DERMATITIS VENENATA? Presented by DR. ELLER.

The patient had previously been presented at the Manhattan Dermatological Society on Jan. 11, 1927, with the diagnosis of dermatitis venenata.

DISCUSSION

DR. LANE: If the story which the patient tells is correct, it seems that almost any sort of dermatitis venenata would have disappeared of itself long before now. It may be that she has been using some applications of which she has said nothing.

DR. KINGSBURY: As the negative history does not fit in with the clinical appearance, I feel that the former may be disregarded. I think that the condition is an eczematoid dermatitis, or one of dermatitis venenata. It may have been somewhat overtreated, or more or less tampered with by the patient herself.

DR. RULISON: I was inclined to think it was a case of malingering, but I understand that there has been no change in the condition for some time. If the patient were using an irritant herself, it would be worse at some times than at others.

DR. MACKEE: While the clinical appearance somewhat resembles dermatitis venenata, I do not believe that there is enough active inflammation for this disease. There is not sufficient erythema or edema, and there are no subjective

symptoms. During the presentation of the patient, Dr. Highman suggested the possibility of artificial dermatitis. Such an eruption might be produced by friction. It might be well to isolate the affected parts for a week in such a way that they could not be reached by the patient without detection. I suggest the possibility of early lupus erythematosus or dermatitis seborrheica.

DR. HIGHMAN: The two things that impressed me were: first the nature of the patient; second, the nature of the eruption. The burden of the proof lies with those who maintain that this is not a case of dermatitis venenata; still, I do not think it is. If it were, I should expect the forehead, neck and hands to be involved as much as the face; and in analyzing this eruption as to its site, it is found that the nose is free, the eruption starting on the cheek adjacent to the nose and extending back to the ear and down to the chin, leaving the middle of the lip and chin uninvolved. The neck and hands do not show an eruption. I cannot conceive of dermatitis venenata that would be so nicely symmetrical and would avoid so many areas that are usually affected; neither is there any exudation such as is seen in dermatitis venenata. A young woman who has the background of good looks, as has this girl, would not be so complacent to disfigurement as she is unless she felt reconciled to it. For this reason I think she has a self-inflicted eruption. I do not think she provokes it with chemicals, but by means of friction, for she could not so distinctly outline the lesions unless she wore gloves.

Next, the motive. I could suggest nothing but a psychiatrist to discover that. I think seriously that it is a case of malingering induced by some frictional method as mentioned by Dr. MacKee.

DR. WHITEHOUSE: I am inclined to agree with Dr. MacKee and Dr. Highman that the case is probably a dermatitis due to friction, without the use of drugs.

DR. ELLER: She has complained bitterly about the eruption, but has not shown definite signs of a neurosis. Dr. Highman's suggestion will be taken into consideration.

POIKILODERMA(?) Presented by DR. LANE.

Miss M. R., aged 57, was previously shown at the meeting of Nov. 23, 1926, with a condition diagnosed as possibly poikiloderma.

A nodule on the dorsum of the right foot and a piece of skin from the right thigh were removed on Dec. 4, 1926. Dr. Highman and Dr. Fraser examined the specimen and reported as follows: Low Power Magnification: The surface of the epidermis was wavy. The epidermis was slightly thickened, and the pegs were not clearly designated in some areas, while they were perfect in others. Below the epidermis there was a band of infiltration filling the corium down to below the subpapillary plexus. High Power Magnification: There was a marked scale showing islands of parakeratosis. The granular layer was markedly thickened in some areas. There were a great many vacuolated cells in the rete and many mitotic figures. The basal layer was well defined. The papillae were slightly edematous, and contained many dilated capillaries distributed throughout. They were independent of the infiltration. The infiltration consisted chiefly of lymphocytes. In addition, there were numerous fibroblasts and a few epithelioid cells. There were also a great many larger cells, which were granular and not susceptible of ordinary grouping. The endothelium of the vessels was swollen. The perivascular lymph spaces contained an infiltration of lymphocytes.

The infiltration was high up and horizontally limited below. It consisted of polymorphous cells. Certain islands in the infiltration were composed uniformly of lymphocytes, and suggested lymphosarcoma. The rest of the infiltration suggested mycosis fungoides. This view was substantiated by the superficial position of the infiltrate. Leukemia could be excluded, partly because of the location of the infiltrate and partly because of the numerous types of cells found. A diagnosis was made of lymphosarcoma or mycosis fungoides.

CEREBELLIFORM NEVUS (?). Presented by DR. LANE.

Miss J. M. M., aged 25, was previously shown at the meeting of the Society on Nov. 23, 1926. The nevus was excised on Dec. 28, 1926. Dr. Highman and Dr. Fraser examined the specimen and reported as follows: Low Power Magnification: The epidermis showed no noteworthy changes. The corium contained a great many normal pilosebaceous organs. A narrow band of infiltration filled in the area under the epidermis and the adjacent structures. Throughout the corium numerous grouped cystic spaces were seen. At one place this condition existed near the hypoderm. In the vicinity of many of these spaces there was a restricted focal infiltration. These cysts varied in size. Some contained an amorphous coagulum. High Power Magnification: In places these cysts were obviously part of the coil gland system in various stages of development from the normal to the cystic, the lining epithelium becoming flat in the distinct cysts. In other places the entire coil had been transformed into a group of cysts, some of which were tortuous instead of circular or oval, conforming to the original shape of the coils. In still other places, isolated cysts were found as though they had originated from the sweat ducts. The infiltration consisted mainly of plasma cells, though there was a fair sprinkling of round cells and fibroblasts. This obtained both in the main infiltration and in the focal ones. The collagen was approximately normal. In other sections normal sweat apparatus could be found with which to contrast the abnormal. The picture was unique; it did not look like cerebelliform nevus, but was more like that of syringoma. The plasma cells, however, constituted a puzzling feature, and might signify a potential of malignancy not indicated by the rest of the picture.

MYCOSIS FUNGOIDES. Presented by DR. MALONEY.

Dr. Maloney reported that the section from the case of mycosis fungoides presented at the meeting of November 23 substantiated the diagnosis.

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